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VENDOR ANALYSIS PROGRAM

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Vendor Profile

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Computer Sciences Corporation-Baan Services Providers

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The following profile outlines the services and support offered by Computer Sciences Corporation for Baan Services.

Company Background

Computer Sciences Corporation (CSC) helps solve client problems in information technology. Its broad-based services include management consulting in the strategic use of information technology; the development and implementation of complete information systems; and outsourcing, covering the full range of a client's information technology activities. CSC worldwide revenues totaled $5.6 billion in 1997.

Other key CSC locations:

- Corporate Offices
  2100 East Grand Avenue
  El Segundo, CA 90245 USA
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- CSC Consulting and Systems Integration
  University Office Park, 29 Sawyer Road
  Waltham, MA 02154 USA
  Tel: 781-647-1006

Founded in 1959, CSC is a publicly owned company.

Baan Activities

CSC's involvement with Baan dates back to 1991, when their personnel worked on one of the first North American Baan implementation projects: the Triton 2.0 product, performed for a large CSC outsourcing customer in the Aerospace and Defense marketplace. CSC established a focused North American Baan implementation services practice in 1997.

CSC is the world's largest independent systems integrator, with 44,000 employees. The firm also is extremely strong in focused industry experience, general ERP expertise and the ability to place large numbers of veteran performers on project teams.

CSC has invested heavily in its Baan implementation practice. Extensive commitments in personnel, training materials, skill development and value-added business models will help them reach critical mass in 1998.

CSC's ability to marshal superior resources and skills in business and technology allows them to support their clients' complete needs: from comprehensive implementation through the post-implementation lifecycle. CSC also places exceptional emphasis on change management and project management. Unlike many other firms, they integrate these capabilities with their technical and applications skills. The firm has change management professionals who are trained and certified in the Baan product.

As one of the world's largest providers of outsourcing services, CSC is well qualified to understand—and respond to—the technical issues and concerns confronting their clients.

CSC places a strong emphasis on client and employee education and training, with heavy reliance on hands-on workshops and labs.

CSC deploys "Go-Fast" principles to achieve timely results, reduce clients' costs, increase competitiveness, and attain more rapid return on investment.

CSC's Baan staff includes technical support and integration roles as well as Baan-certified consultants.

CSC has extensive experience integrating legacy application systems with ERP application systems.

CSC can tailor its implementation approach to provide an optimal fit with their clients' cultures and the strengths of its people.

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Employees

Worldwide, CSC has 44,000 employees, of which 691 are committed to Baan support. In North America, 100 of CSC's 32,000 employees support the Baan practice. Exhibit 1 identifies six primary Baan skill categories and notes CSC's estimated growth in staff in these areas over the next twelve months.

Exhibit 1

CSC Baan Staffing

Type of Staff	Current Number	Growth % 12 Months
Business Consultants	10	250%
Project Directors	5	260%
Project Managers	5	260%
Application Consultants	20	270%
Technical Consultants	35	250%
Post-implementation Support Personnel	20	250%
Other	5	200%
Total	100	252%

Source: CSC

Implementation Approaches

CSC uses its Catalyst Methodology, which is based on many of the same implementation principles as the Baan TARGET methodology. The Catalyst methodology has been rationalized with the Baan TARGET Methodology for consistency and approach, and leverages the Dynamic Enterprise Modeler (DEM) and Work Flow products.

To provide an optimal fit with their clients' culture and people strengths, the Catalyst Methodology allows for a variety of implementation approaches. Moreover, it allows the CSC project team to get "in synch" with the client in the lifecycle of its implementation.

Key attributes of the CSC/Baan Catalyst Methodology are based on the following implementation-proven principles:

- Implementation efforts centered around delivering business value
- Systems implemented to satisfy both existing and anticipated user requirements at the time of delivery
- Implementation alignment with clients' business vision
- Rigorous support of organizational learning during the system implementation process

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- Emphasis on creating partnerships between provider and user
- Reengineering—not simply automating—key business processes
- Achieving business results with a consistent, ongoing series of small successes
- Aggressive application of technology
- Concurrent realization of quality and productivity
- Use of an Architectural blueprint to guide implementation
- Incorporation of a formal change management process to orchestrate business change

Ongoing Support Offerings

Baan infrastructure support for post-implementation is planned and designed in partnership with CSC clients. Options include: 1) training client personnel who will provide post-implementation support; 2) initiating an outsourcing agreement with the client in which CSC provides all or part of the post-implementation support; or 3) continuing to provide consulting services as required to support post-implementation.

If options 1 or 2 are chosen, support teams generally include original implementation team members who are pre-designated as members of the on-going support team. CSC's Catalyst methodology orchestrates the entire scope of a business transition, rationalizing procedures, integrating staff, and encouraging acceptance of change. CSC offers outsourcing services and support for applications, technical infrastructure, change management, and problem management.

Pricing Approaches

CSC's pricing options are fixed price or time and materials.

Alliances and Partnerships

CSC has a Joint Marketing Agreement with Sun Microsystems to provide coordinated CSC/Sun services.

Services available from Sun to help with CSC/Baan implementations include: Baan Benchmarking Center, Baan Tuning and Stress Testing, Baan Configurator Tool, and Sun loaner equipment for Baan opportunities.

In addition, Hewlett-Packard and CSC have had a formal alliance for more than five years. This relationship has grown to the extent that CSC is now part of HP's select group of "Global Partners." HP has a similar global relationship with Baan.

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Vertical Market Competencies

CSC focuses on the following vertical markets:

- Aerospace and Defense
- Automotive
- High Technology
- Food and Beverage
- Pharmaceuticals/Processes
- Metals/Wood and paper
- Government

Supported manufacturing approaches include:

- Discrete
- Continuous
- Projects

Exhibit 2 details CSC's participation in eight broad market categories, in terms of the level of consulting or implementation involvement (e.g., consulting with the client, who will then perform the implementation, or implementing the Baan system for the client).
Exhibit 2

Exhibit 2

Level of Vertical Market Involvement, by Activity

Vertical Market	Consulting	Implementation
Aerospace & Defense	High	High
Automotive	High	High
Process Industries	Medium	Medium
Hybrid	Medium	Medium
Project Industries	Medium	Medium
Electronics	Medium	Medium
General Manufacturing	Medium	Medium

Source: CSC

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Strategic Positioning

CSC considers the following to be its main strengths and differentiators:

- CSC has a Global Baan delivery capability
- CSC is willing to be very direct in their assessment of project progression and status. They will go to great lengths to help their clients resolve problems
- CSC's comprehensive "Delivery Assurance" program ensures that they can deliver what they promise within the desired time-frame
- CSC has a rigorous estimating and scoping process that provides an important advantage in delivering successful implementations. CSC has people assigned full-time to continuously improve their estimating methods and tools
- CSC has a particularly competitive cost structure—the result of: 1) their ability to provide resources that are tailored to accomplish specific implementation activities; and 2) their ability to perform as a single source provider
- CSC's Organizational Development and Change Management capabilities are an integral part of their implementation process. Key personnel performing these activities are trained and certified in the Baan product
- CSC is one of the world's premiere outsourcing providers, and this capability can be an option for their clients. Outsourcing allows a client to get a "faster start" on its implementation project and acts as core competency to supplement clients' capabilities. Outsourcing may also result in a more cost effective implementation
- CSC has a major technical delivery capability and can handle legacy system integration and data conversion for even the largest client projects
- CSC has more years of experience at the senior level than most of their competitors
- CSC has the ability to deliver fast Baan implementations by using proven techniques and by quickly mobilizing resources
- CSC has a comprehensive and full service offering of Baan Training and Education and numerous consultants with Advanced Certification in multiple Baan products.

CSC's country focus for its Baan practice in North America includes the United States, Canada and Mexico.

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Plans for the Future

CSC has a very large presence in the U.S. Government marketplace and is pursuing a major campaign of Baan ERP implementations in this market sector.

Selected Customer Projects

Please contact CSC for specific client and reference information.

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Vendor Profile

A Publication from INPUT's Vendor Analysis Program – U.S.

February 1996

Computer Sciences Corporation

Chairman: William R. Hoover
President & CEO: Van B. Honeycutt
2100 East Grand Avenue
El Segundo, CA 90245
Phone: (310) 615-0311
Fax: (310) 322-9805

Status:	Public
Employees:	32,900 (4/95)
Revenue:	$ 3,372,502,000
Fiscal Year End:	3/31/95

Key Points

- Computer Sciences Corporation (CSC), founded in 1959, is the largest independent provider of professional services, including management consulting, business reengineering and information systems consulting, systems integration and outsourcing services.
- In fiscal 1995, revenue from CSC's commercial operations grew more than 38% to $1.88 billion, representing 56% of CSC's total revenue. The biggest increase came in the international sector, where revenue more than doubled, due primarily to significant increases in outsourcing and consulting.
- Revenue from the U.S. government increased 22% during fiscal 1995 to $1.49 billion, led by CSC's largest federal contract ever—an eight-year, $1.1 billion contract to operate NASA's Marshall Space Flight Center in Huntsville (AL).
- CSC's management consulting and systems integration activities were expanded both domestically and internationally during fiscal 1995 with the acquisitions of The DiBianca-Berkman Group, Ouroumoff

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Consultants and Ouroumoff International, Weston Group and Ploenzke AG. Together, these five companies bring more than $200 million in annual revenue and 1,600 professional staff to CSC.

- William R. Hoover, who has been chief executive officer of CSC since 1972, retired as CEO on March 31, 1995, but continues as chairman of the board. Van B. Honeycutt, who has been president and chief operating officer since June 1993, is now CEO and president.

Company Description

Serving government and commercial clients, CSC provides strategy and management consulting, business reengineering, information technology consulting, requirements analysis, software development, systems engineering and integration, turnkey computer/communications systems and systems operations (outsourcing) services. The company also provides industry-specific proprietary products and services for credit reporting, claims processing, health maintenance organizations, discrete manufacturing, retail, transportation, distribution, utilities and telecommunications.

Organization and Structure

CSC's organization structure is shown on the following page. The company currently provides its services through the following units:

- The Systems Group, headquartered in Falls Church (VA), is the company's primary resource for computer and communications technology. The group has four divisions that primarily serve the U.S. government.
- The Consulting Group, headquartered in Cambridge (MA), offers systems integration and technology consulting services to the commercial marketplace.
- CSC Index, headquartered in Cambridge (MA), provides management consulting and business reengineering services worldwide.
- CSC Credit Services, based in Houston (TX), provides consumer credit reports and account management services to credit grantors nationwide.
- The Technology Management Group, headquartered in Falls Church (VA), is responsible for overseeing all commercial outsourcing-related activities in North America.
- Integrated Business Services, headquartered in Falls Church (VA), was created in April 1995 to serve as the focal point for presenting CSC's range of services to selected companies in the commercial marketplace.
- CSC Europe, headquartered in London, provides consulting, systems integration and outsourcing services to public and private businesses, primarily in Europe. This group has seven divisions spanning Belgium, France, Germany and the Netherlands.
- CSC Australia, headquartered in Sydney, provides a range of management consulting, systems integration and outsourcing services to the Australian marketplace.

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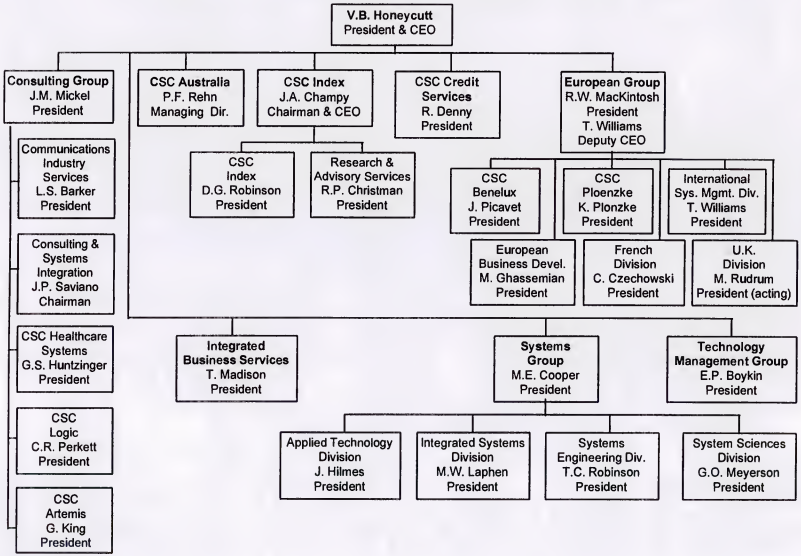
Computer Sciences Corporation Organization Chart



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Company Strategy

CSC's strategies are to maintain its dominant position in the U.S. federal marketplace (which contributed 44% of fiscal 1995 revenue) while expanding its market share in non-federal markets through internal growth and acquisitions. The company is dedicated to being the best in technology, business reengineering and project management.

CSC management has set the objective of becoming one of the top two or three companies in the commercial markets for consulting, systems integration, outsourcing and related professional services in the U.S. and Europe.

- Three factors in the global marketplace are driving strong commercial opportunities for CSC:
  - A strong demand for business solutions such as reengineering, outsourcing and the development of systems that bring new efficiencies to maintain market share and control costs;
  - The demand for consultants, systems integrators and outsourcers to help rethink and reshape strategies to keep up with new competition;
  - The need to respond innovatively to more sophisticated and demanding consumers.
- In the area of commercial business reengineering, CSC will continue to refine and enhance its business process reengineering practice by combining its consulting expertise with its industry and technology skills and will use CSC Index to break new ground.
- In the area of commercial systems consulting and integration, CSC's strategies include:
  - Bringing leading-edge, commercially proven technologies to clients
  - Giving clients the business strategy and reengineering consulting they need to ensure that their systems are aligned with their business goals
  - Maintaining the best practices and methodologies to build comprehensive systems fast
  - Staying closely attuned to each client's industry, offering pre-engineered software solutions when needed
  - Providing the best program management, applying CSC's skills in building the largest, most complex systems for the federal marketplace to the commercial world
- In the commercial outsourcing area, CSC's primary strategies include:
  - Helping customers rethink their business goals, viewing outsourcing as a way to add value to their enterprise
  - Promoting awareness of a key reason most clients say they outsource with CSC—its flexibility and exceptional focus on accommodating customers
  - Approaching clients around industry strengths, focusing on specialty areas that include aerospace, banking, consumer credit, consumer goods, health care, insurance, manufacturing, retail, telecommunications and utilities
  - Seeking innovative partnerships, risk-sharing agreements and strategic alliances
- In the commercial industry services area, strategies include:

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- *Credit services*—maintaining a strong partnership with Equifax to provide high-quality consumer credit files
- *Financial services*—expanding traditional focus on insurance to include new markets such as banking and investment firms
- *Health care*—building on the emerging trend of alliances being forged among doctors, hospitals, clinics and insurance companies to reduce costs and improve quality of care

- Key technology issues being addressed by CSC include client/server, object-oriented programming and rapid application development. About 80% of all CSC's new commercial business is client/server. The company has established a Center of Excellence to support internal research and is expanding its new CSC Catalyst℠ methodology to promote object-oriented programming.

CSC's strategy for the federal market includes:

- In the federal business reengineering area, CSC's strategies include:
  - Meeting with top executives from the major civil, defense and intelligence agencies to educate them about what real reengineering can do and how it can work for them
  - Initiating reengineering tasks at small to midsized agencies where radical change can happen quickly
  - Working with existing and potential clients to expand their thinking about the value CSC's reengineering skills can bring
- In the federal systems integration area, CSC strategies include:
  - Focusing on the best methodologies, tools and off-the-shelf products to produce real results for clients better, faster and cheaper than competitors
  - Being the experts in dealing with legacy systems
  - Stressing CSC's strong record in winning business across every sector of the federal marketplace
  - Being the company that provides the best value by offering the full breadth of CSC's skills and technologies
- In the federal professional services area, CSC's strategy includes:
  - Being the company that offers the broadest range of support services
  - Maintaining CSC's lead as the nation's largest test range services contractor
  - Knowing customers and their unique needs better than any other company in the industry
- In the federal outsourcing market, CSC's strategies include:
  - Educating the marketplace about CSC's commercial success and how this can be tailored to get results for the government
  - Building consensus around CSC's definition of federal outsourcing and its approach to the marketplace, which involves linking an agency's assorted technology-related contracts into a single, large services agreement with guaranteed cost savings

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- On a small scale, building some demonstrable successes over the next year in the federal arena to showcase the kinds of savings CSC can achieve

- Helping government agencies develop the new kinds of contracting and monitoring requirements they need to support a new way of doing business

Financials

CSC's fiscal 1995 revenue reached $3.37 billion, a 31% increase over fiscal 1994 revenue of $2.58 billion.

- Net income for fiscal 1995 was $110.7 million, up 22% over fiscal 1994 net income of $90.9 million (before the cumulative effect of a change in the method of accounting for income taxes). After the change, net income for fiscal 1994 was $95.8 million.

- In the five-year summary below, financials include results of businesses acquired from their respective dates of acquisition, as well as the results of businesses sold up to the date of their divestiture.

Computer Sciences Corporation
Five-Year Financial Summary
($ Millions, except per share data)

	Fiscal Year				
Item	3/31/95	4/1/94	4/2/93	4/3/92	3/29/91
Revenue	$3,372.5	$2,582.7	$2,479.8	$2,113.4	$1,737.8
• Percent change from previous year	31%	4%	17%	22%	16%
Income before taxes	$173.7	$149.1	$128.2	$109.2	$102.5
• Percent change from previous year	16%	16%	17%	7%	(1%)
Net income	$110.7	$95.8	$78.1	$68.2	$65.0
• Percent change from previous year	16%	(a) 23%	15%	5%	(1%)
Earnings per share	$2.09	$1.86	$1.55	$1.37	$1.34
• Percent change from previous year	12%	(a) 20%	13%	2%	(1%)

(a) Includes a $4.9 million ($0.09 per share) cumulative effect of a change in the method of accounting for income taxes.

Revenue growth for fiscal 1995 was due to expansion of internal activities and acquisitions.

- Revenue from the U.S. government increased 22% to $1.49 billion, led by the award of a NASA contract valued at $1.1 billion over eight years if all options are exercised. The higher federal revenue also includes the effect of the acquisition of the Professional Services Group of Atlantic Research Corporation at the end of the third quarter of fiscal 1994. During fiscal 1995, CSC was awarded federal contracts with a value of $1.8 billion, compared with $2.0 billion the prior year.

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- Commercial revenue comprised 56% of total revenue for fiscal 1995. Domestic commercial revenues increased 13% to $1.17 billion in fiscal 1995, led by large increases in commercial outsourcing. Notable outsourcing contracts providing this revenue improvement were signed with Hughes Aircraft Company, American Medical Response, Scott Paper, San Diego Gas & Electric, the Mutual Life Insurance Company of New York and Polaroid. Increases were offset by the impact of the New Jersey JUA/MTF contract expiration.

- International revenues increased 122% to $713 million for fiscal 1995. The bulk of the growth came from significant increases in outsourcing and consulting. International clients adding to revenue include British Aerospace, Ford of Europe, ICI Paints and Toyota of Belgium.

During the fourth quarter of fiscal 1995, CSC received $196.3 million in proceeds from a four million common share public offering. Approximately 50% of the proceeds were applied to reduce bridge financing used to support CSC's acquisition of Ploenzke AG and the Hughes Aircraft Company outsourcing contract.

Interim Results

Revenue for the nine months ending December 31, 1995 reached $3,081.9 million, a 31% increase over $2,354.5 million for the same period in 1994. Net income was $94.1 million, a 32% increase over $71.5 million for the same period a year ago.

- Federal revenues, representing 38% of total revenue, rose 9% to $1,168.1 million.

- Domestic commercial revenue rose 38% to $1,118.0 million. Growth was fueled primarily by domestic outsourcing and consulting activities.

- International revenue jumped 68% to $795.8 million, mainly due to increased outsourcing business and the Ploenzke AG acquisition in January 1995.

Revenue Analysis by Product/Service

A three-year summary of source of revenue, as reported by CSC, is shown below.

Computer Sciences Corporation
Three-Year Source of Revenue Summary
($ Millions)

	Fiscal Year					
	3/31/95		4/1/94		4/2/93	
Product/Service	Revenue $	Percent of Total	Revenue $	Percent of Total	Revenue $	Percent of Total
Professional services	$1,515	45%	$1,136	44%	$901	37%
Systems integration	705	21%	697	27%	617	25%
Outsourcing	1,153	34%	750	29%	962	38%
Total	$3,373	100%	$2,583	100%	$2,480	100%

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INPUT estimates that CSC's $2.65 billion in fiscal 1995 U.S. information services revenue was derived approximately as follows:

Professional services	32%
Systems integration	30%
Systems operations	30%
Processing/network services	6%
Turnkey systems	2%
	100%

Market Financials

Approximately 44% of CSC's fiscal 1995 revenue was derived from the federal government and 56% from commercial sources. A three-year summary of source of revenue by industry appears below.

Computer Sciences Corporation
Three-Year Industry Market Source of Revenue Summary
($ Millions)

	Fiscal Year					
	3/3/95		4/1/94		4/2/93	
Industry/Market	Revenue $	Percent of Total	Revenue $	Percent of Total	Revenue $	Percent of Total
Federal						
- Department of Defense	$823.8	24%	$693.2	27%	$675.7	27%
- NASA	312.4	9%	222.0	9%	260.7	11%
- Civil agencies	353.2	11%	308.0	12%	318.0	13%
	$1,489.4	44%	$1,223.2	48%	$1,254.4	51%
Commercial						
- U.S.	$1,169.8	35%	$1,038.5	40%	$990.3	40%
- International	713.3	21%	321.0	12%	235.1	9%
	$1,883.1	56%	$1,359.5	52%	$1,225.4	49%
Total	$3,372.5	100%	$2,582.7	100%	$2,479.8	100%

Commercial revenue is derived from Fortune 1000 companies in manufacturing, insurance, banking and finance, telecommunications and utilities; and the retail, wholesale/ distribution, medical and services industries.

A further breakdown of CSC's $1.17 billion in U.S. commercial revenue for fiscal 1995 is estimated as follows:

Industry/Market	Percent of Revenue
Manufacturing and distribution	43%
Banking and finance	16%
Medical	12%
Insurance	10%
Telecommunications	10%
Other	9%
Total	100%

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International revenue is derived from foreign governments, financial institutions, transportation companies and manufacturers.

Geographic Markets

Approximately 79% of CSC's fiscal 1995 revenue was derived from the U.S. and 21% from international markets. A three-year summary of geographic sources of revenue is shown below.

CSC maintains offices in more than 300 locations throughout the U.S. and has approximately 575 offices worldwide. Operations span the U.K., Belgium, France, Germany, the Netherlands, Canada and Australia.

Computer Sciences Corporation
Three-Year Geographic Source of Revenue Summary
($ Millions)

	Fiscal Year					
	3/31/95		4/1/94		4/2/93	
Geographic Market	Revenue $	Percent of Total	Revenue $	Percent of Total	Revenue $	Percent of Total
U.S.	$2,659.2	79%	$2,262.0	88%	$2,244.7	91%
International	713.3	21%	320.7	12%	235.1	9%
Total	$3,372.5	100%	$2,582.7	100%	$2,479.8	100%

Acquisitions

In July 1995, CSC acquired the Oxford Consortium, the information services unit of the Anglia and Oxford Regional Health Authority.

- The Oxford Consortium, based in the U.K., supports about 80 surrounding hospitals and health care organizations with a range of administrative services such as finance, human resources, public relations and information technology.
- Estimated annual revenue from contracts held by the Oxford Consortium are $15 million. In addition to taking over these contracts, CSC will also acquire the consortium's data center in Oxford. About 230 employees specializing in health care and information technology services will also join CSC.
- The new organization, based in Oxford, has been named The CSC Oxford Consortium.

In March 1995, CSC acquired Weston Group of Westport (CT), a consumer goods consulting firm specializing in business sales and marketing strategy. Weston, with 44 employees and annual revenue of approximately $10 million, is now a national practice in CSC's consulting and systems integration unit.

In January 1995, CSC acquired a majority interest in Ploenzke AG, Germany's largest independent computer services firm.

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- Ploenzke AG specializes in consulting, systems integration and custom software development. The company serves commercial and public sector clients.

- A key benefit of the acquisition is Ploenzke's strength in providing implementation services for software products developed by SAP.

- With annual revenue of $170 million and a staff of 1,400 information technology experts, Ploenzke AG has 19 offices spanning Germany. It also has subsidiaries in Switzerland, Austria, Spain and Holland, which CSC will acquire as part of the agreement.

In January 1995, CSC acquired Ouroumoff International, a sister company of Ouroumoff Consultants, which was acquired by CSC in August 1994.

- Based in Paris, Ouroumoff International supports clients in Eastern Europe, the Pacific Rim and South America. It specializes in helping public and private sector clients plan the infrastructure needed to support projects spanning telecommunications, manufacturing, transportation, utilities and defense.

- Clients include the World Bank and the International Monetary Fund, both based in Washington, D.C., and the European Community.

In August 1994, CSC acquired Ouroumoff Consultants, one of the top 10 management consulting firms in France. Terms of the acquisition were not disclosed.

- Ouroumoff, with 80 employees and annual revenue of approximately $18 million, specializes in business process reengineering, redesign, information technology change management, logistics, quality management and marketing.

- Services are provided throughout Europe in various industry sectors, including manufacturing, distribution, retail, utilities and government.

- The acquisition expands CSC's professional services offerings in Europe. CSC's revenues in France will increase by more than 50% with the acquisition.

- Ouroumoff's operations have been merged into CSC's French Division.

In June 1994, CSC acquired the remote computing services business of Comdisco's Comdisco Computing Services Corporation.

- CSC also bought Comdisco's remote computing contracts, valued at an estimated $10 million over three years, and is leasing Comdisco's 77,000-square-foot processing facility in Carlstadt (NJ) and related hardware.

- Under the terms of the agreement, CSC is marketing Comdisco's business continuity services, and Comdisco Disaster Recovery Services markets CSC's item capture service in New York and New Jersey.

- The acquisition strengthens CSC's outsourcing presence in the Northeast and positions the company to pursue additional opportunities in the region. CSC's co-marketing arrangement with Comdisco demonstrates CSC's goal to become the leader in item processing.

In June 1994, CSC acquired The DiBianca-Berkman Group Inc. of Flemington (NJ), a leader in the practice of corporate cultural change and executive alignment as it relates to business reengineering. The private firm,

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with annual revenue of approximately $8 million, is now part of CSC Index.

In January 1994, CSC acquired the Professional Services Group (PSG)—an information technology company based in Rockville (MD)—from Atlantic Research Corporation, a unit of Sequa Corporation. The acquisition added about $35 million to CSC's federal business base; 16 new CSC offices in the Washington, D.C. area and six international offices (three in Canada, two in the U.K. and one in Greece); and core capabilities in command, control, communications and intelligence and information systems for the Department of Defense, civil agencies of the U.S. government, and international clients.

Divestitures

In June 1994, CSC sold its tax processing operations to Compucraft Data Services of Torrance (CA).

Employees

As of April 1995, CSC had approximately 32,900 employees.

As of October 1995, CSC had approximately 33,000 employees, segmented as follows:

Systems Group	54%
Industry Services Group	7%
Consulting Group	7%
Technology Management Group	12%
CSC Europe	16%
CSC Australia	3%
Other	1%
	100%

Key Products and Services

CSC's services are summarized according to federal and commercial lines of business.

U.S. Federal Government Business

The Systems Group is the company's primary provider of information systems and services to the federal government. Services provided include systems engineering and integration, the development of custom-designed computer-based systems and communications systems, operational support of clients' technical activities, clients' computer facilities management and turnkey system development.

The Systems Group consists of four units:

- The Integrated Systems Division, based in Moorestown (NJ), designs, implements and integrates systems for office automation, digital imaging and administrative and engineering support and for military uses such as weapons control, logistics, wargaming, and command, control and communications (C^3I).

- The System Sciences Division, headquartered in Calverton (MD), provides systems engineering, analysis, software development and end-to-end integrated data systems and services, primarily to aerospace clients such as NASA and the FAA.

- The Systems Engineering Division, headquartered in Falls Church (VA), performs high-level technical management projects, known as systems engineering and technical assistance (SETA), for the government. The division also performs research and development in systems and software technologies and special activities in signal processing, communications systems and information processing. As of April 1995, the division took over responsibility for the National Flood Insurance Program and the federal Black Lung Program, both located in Lanham

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(MD), from CSC's former Health and Administrative Services Division.

- The Applied Technology Division, headquartered in Falls Church (VA), provides systems operations (facilities management) services, primarily for NASA; provides operations and maintenance services to aircraft and weapons test centers; and provides software development support to federal agencies. This division, CSC's largest business unit, has about 9,000 employees.

CSC and the National Computer Security Association (NCSA) have launched the National INFOSEC Exchange—a program to promote the open exchange of system security information between private industry and the federal government.

Significant contract awards for the group include the following:

- In September 1995, CSC was awarded a six-year, $90 million contract to provide software engineering services to support the Department of Defense.

- In August 1995, CSC was awarded an eight-year, $58.1 million contract with the Defense Commissary Agency. CSC will team with a leading grocery chain to help the military modernize systems for more than 300 commissaries worldwide.

- In July 1995, CSC was awarded a five-year, $300 million task order contract to provide technical information systems security applications to the Department of Defense, along with other federal agencies and departments.

- In July 1995, CSC was awarded a five-year, $21.3 million contract to provide engineering and program management support to the U.S. Space and Naval Warfare Systems Command in Arlington (VA).

- In June 1995, CSC was named one of 12 vendors to provide information processing support services to the Department of the Treasury and other Treasury bureaus. CSC's share of the five-year task order contract is $200 million. CSC will provide information systems, engineering, telecommunications and security services to help the IRS move from mainframe, paper-based systems to new distributed workstations.

- In June 1995, a joint venture headed by CSC was awarded a five-year, $460 million contract to operate the computer center, supporting management information systems and providing environmental services, at the Air Force Arnold Engineering Development Center in Tullahoma (TN). Other members of the joint venture include DynCorp in Reston (VA) and General Physics Corp. in Columbia (MD).

- In May 1995, CSC was selected by Lockheed to provide computer support and upgrades to the Aegis Combat Weapons System and other Navy Aegis programs. CSC will provide computer program design, coding, integration, support and testing of Aegis upgrades, combat system requirements and critical experiments. The contract is a continuation of work CSC has performed in support of the Aegis program for 25 years.

- In April 1995, CSC was awarded a subcontract by DynCorp to perform data processing and software development for DynCorp in support of the Department of Energy's Office of Information Management in Germantown (MD).

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- In March 1995, CSC was awarded a five-year, $67.7 million contract by NASA to provide engineering support services at NASA's Wallops Flight Facility in Virginia. CSC has supported the facility since 1970.

- In March 1995, CSC was awarded a five-year, $24.8 million contract to provide systems engineering and integration services for the Navy's Operations Support System (OSS) development program.

- In January 1995, CSC was awarded a seven-year, $21.3 million contract to provide computer system and software integration development and support for marine safety and law enforcement missions for the U.S. Coast Guard.

- In December 1994, CSC was awarded a five-year, $58.1 million contract with the Health Care Financing Administration (HCFA) to provide facility management services to support the operation of Medicare and Medicaid programs.

- In August 1994, CSC was awarded a four-year, $157 million contract by the General Services Administration (GSA) to provide business and scientific support to dozens of federal agencies in 13 midwestern and southeastern states that use GSA as a central resource for computer services.

- In July 1994, CSC was awarded a five-year, $38 million contract with the U.S. Navy to provide networking and computer support for financial and management systems for the Navy's research laboratory.

- In May 1994, CSC was awarded a five-year, $94 million contract with the DoD to provide modeling and simulation tools to help the Joint Staff and Unified and Specified Commands test and assess different wartime contingency plans.

- In May 1994, CSC was awarded an eight-year, $1.1 billion contract with NASA to provide information systems support at the NASA Marshall Space Flight Center in Huntsville (AL).

- In March 1994, CSC was awarded a five-year, $97.5 million contract with the U.S. Navy to provide systems engineering and software support to the Navy's Aegis combat weapons program.

- In November 1993, an industry team headed by CSC was awarded one of six Defense Technical Integration Services (DTIS) contracts by the Defense Information Systems Agency (DISA).

  - The contracts provide the tools to move the DoD and other government agencies into a multitiered, open systems environment. The contracts were awarded for one year, with six one-year extension options, and have a combined maximum value of $935 million.

  - CSC, leading a team of 17 subcontractors, will perform about 70% of the work on its contract.

- In July 1993, CSC was awarded a seven-and-one-half-year, $200 million contract to operate and maintain NASA's Langley Central Scientific Computing Complex in Hampton (VA). CSC has supported NASA Langley for more than 20 years and has been a NASA contractor for more than 30 years.

- In July 1993, CSC was awarded a six-year, $566 million contract to provide range technical services to the Air Force Eastern Range at Patrick Air Force Base in Cocoa

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Beach (FL) through a joint venture with Raytheon.

- In June 1993, CSC was awarded a four-year, $50 million contract to continue processing health claims and disability benefits for the U.S. Department of Labor's Federal Black Lung Program.

- CSC has provided statistical support services for the Federal Emergency Management Agency's (FEMA) National Flood Insurance Program since 1983. In May 1993, CSC was awarded a five-year, $48.6 million renewal contract from FEMA.

- In April 1993, CSC was awarded a 10-year, $400 million contract by the Bureau of Land Management to provide a new Automated Land and Mineral Record System.

- In April 1992, CSC was awarded an eight-year, $575 million contract by the U.S. Air Force to provide engineering and instrumentation in support of flight testing and training programs and maintenance and operation of data collection and processing systems at the Edwards Flight Test Center and Utah Test and Training Range, plus associated remote locations.

CSC is a member of the AT&T team selected in December 1988 to replace the federal government's current telecommunications system. Known as FTS 2000, the program provides government agencies with an integrated system for voice, data and video services. CSC is providing a billing system for FTS 2000. CSC's Consulting Group is engaged in the FTS 2000 program.

U.S. Commercial Business

CSC's services to domestic commercial clients are provided primarily through the Consulting Group, CSC Index, the Industry Services Group and the Technology Management Group.

Consulting Group

The Consulting Group provides systems integration, requirements analysis, system design, software development, system engineering, communications system engineering and facilities management for nonfederal organizations worldwide. These activities are performed by two units—Consulting & Systems Integration and Communications Industry Services.

Consulting & Systems Integration, based in Waltham (MA) with 1,900 employees, combines strong industry expertise with deep technology capabilities to help Fortune 1000 companies solve critical business problems. It also supports, through CSC Logic and CSC Healthcare Systems, the financial services and health care industries.

- The unit provides services in three broad areas—management consulting, systems integration and technology consulting.

  - Management consulting services include:

    · Industry consulting
    · Business process redesign
    · Change management
    · IT planning and strategy
    · TQM/business process improvement
    · Technical architecture development
    · Business architecture development
    · IT reengineering

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- Systems integration services include:
  - Project and program management and implementation
  - Conversion and migration planning
  - Package evaluation, selection and implementation
  - Legacy system migration
  - Software reengineering
  - Transitional outsourcing
- Technology consulting services include:
  - Database consulting
  - Performance engineering
  - Network architecture and design
  - Systems architecture and design
  - Systems management
  - Application maintenance outsourcing
  - Staff support

- The unit serves a range of industries, including consumer goods, distribution and logistics, financial services, manufacturing, pharmaceuticals, retail, telecommunications and utilities. CSC Consulting also serves state and local governments.

- Two organizations within Consulting & Systems Integration (CSC Logic and CSC Healthcare Systems) also serve the financial services and health care industries.

- CSC Logic, Inc., with 250 employees, provides systems operations, processing services and applications software products for the administration of life and disability insurance for credit loans and mortgages, collateral protection insurance and insurance for automobile manufacturers' warranties.
  - The majority of CSC Logic's business is from full administration (systems operations) services, followed by processing services and software licensing. CSC Logic's CALS-II software is available for IBM and compatible mainframes and microcomputers and through CSC Logic's data center in Dallas.
  - CSC Logic is participating in a $39.7 million, three-year contract from the Resolution Trust Corporation to provide processing and asset management services for assets of failed thrifts in Texas, Louisiana and Mississippi.
  - In September 1995, CSC was awarded a seven-year, $35 million contract with First National Bank of Chicago to support the bank's reengineering efforts and establish common systems to support its financial reporting operations.
  - CSC Logic currently has approximately 100 clients, including insurance companies, financial institutions and financial subsidiaries of automobile manufacturers.
- CSC Healthcare Systems, Inc., with 860 employees, provides outsourcing, systems integration and software products for the managed care health care environment. This unit also performs all work with the New York State Department of Social Services—and all related health care work—that was provided by the former Health and Administrative Services Division.
  - Software products provided through CSC Healthcare Systems are primarily focused on managed care and include the following:

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Managed Health Care (MHC) is a UNIX-based managed care claims and administration system. The target market for MHC is HMOs, IPAs, Local Delivery Systems, PHOs and Prepaid Group Practices. There are more than 120 MHC installations in 40 states.

Managed Health Care Information Systems (MHS) is an IBM mainframe and AS/400-based managed care claims and administration system for managed care organizations. There are more than 60 MHS installations.

Ambulatory Care Group Case Mix System (ACG) is a case-mix methodology developed at Johns Hopkins University for which CSC Healthcare Systems is the exclusive distributor. The ACG system can be used to compare providers, develop group rates for health care services and forecast the demand for care.

Focal Point™ Decision Support System is a data management and analysis tool that provides access to medical utilization and cost information.

- Recent health care-related outsourcing contracts include the following:
  - In July 1995, CSC was awarded a five-year, $160 million contract with National Health Services of Scotland to provide information management services to the country's hospitals.
  - July 1994, CSC was awarded a seven-year, $55 million outsourcing contract with American Medical Response, a leading provider of emergency pre-hospital medical care and general ambulance services, to develop and maintain a system and national network that will manage the company's claims processing, billing and receivables operation.
  - In June 1994, CSC was awarded a contract with the Joint Commission on Accreditation of Healthcare Organizations to receive, store and process data for the Joint Commission's Indicator Measurement System, a national reference database designed to measure hospital performance, stimulate improvement in patient care and eventually generate "report cards" on quality for consumers and purchasers of health care.
  - In December 1994, CSC signed a five-year contract with United Healthcare Corp. to process health care claims for the United Mine Workers of America Combined Benefit Fund.
  - Since 1986, CSC has acted as fiscal agent for the New York State Department of Social Services' Medicaid program.
- In September 1995, CSC was awarded a contract with Holiday Inn to provide a sales force automation system to streamline the hotel chain's corporate and group sales process.
- In February 1995, CSC was awarded a four-year, $100 million contract with BhS, a clothing and accessories retailer, to provide systems integration services based on recommendations made by CSC Index to increase profits and speed the time it takes to get products to customers.
- CSC has had a continuous contractual relationship with AT&T for over 20 years.

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- In February 1994, CSC Consulting was awarded a ten-year subcontract with Fleet Financial Group to help redesign and streamline existing tax processes and develop a new income tax processing system for the state of New York.

CSC Impact provides information technology services primarily to business and corporate information technology executives.

- Services are delivered in three primary areas:
  - Helping organizations reposition their information technology activities in support of business reengineering initiatives
  - Delivering assessment and planning support so that senior information systems and business executives can more closely align technology investments, structure and management practices with strategic business objectives
  - Identifying innovations in information technology that businesses can use to exploit new markets or improve internal operations.

Communications Industry Services (formerly CSC Intelicom Inc.) is based in Bethesda (MD) and specializes in products and services to telecommunications firms. With 600 employees, the unit provides applications software products and associated support services to the regional Bell operating companies, major independents and interexchange carriers in North America and Europe.

- CSC also markets ISIS™, a billing and administrative support system for the wireless communications market, including cellular, GSM cellular, PCNs and paging applications. ISIS runs on a range of systems, from PCs to mainframes.

- TRIS+™, acquired in August 1992 with BankIllinois Company, is a wireless billing system for midsized cellular carriers that runs on a distributed basis.

- NetCharge™ is a billing system for wireline providers.

- In September 1995, CSC was awarded a five-year, $50 million contract to provide enhanced fax services to support U S WEST residential and business customers. CSC will also oversee business operations, customer service, billing and technology development.

- In July 1995, CSC was awarded a three-year, $26 million contract with BellSouth to install a work force management system to support BellSouth's field technicians.

- In November 1994, CSC announced a five-year, $50 million contract with Grupo Iusacell, Mexico's leading cellular phone company, to provide wireless billing and administration services.

- In March 1994, CSC announced a two-year plan to build *Open***BASE**™—the first open systems platform to support billing and administration tasks in the telecommunications arena. CSC has alliances with HP, AT&T Global Information Solutions, DEC, Oracle and Ingres (Computer Associates) to support the effort.

- In March 1994, AT&T's Network Systems Group chose CSC to provide billing and business management systems and related services to support wireless and wireline telecommunications providers worldwide.

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The agreement is expected to create revenue for CSC of more than $60 million over the next three years.

- In August 1994, CSC Intelicom was awarded a contract with Qatar Public Telecommunications Corp. to provide wireless billing and administration systems in the Middle East. The contract is initially valued at $2 million for implementation of CSC's ISIS wireless billing system.

- In March 1993, CSC signed a marketing agreement with Davox Corp. (Billerica, MA), which specializes in integrated inbound/outbound calling systems.

- In November 1993, CSC was awarded a four-year, $25 million contract from Nextel Communications, Inc. to develop a business management system that streamlines the way cellular customers are billed.

CSC Artemis markets the Artemis project management software product line, which was acquired by CSC from Lucas Industries in June 1995.

Enterprise CALS (ECALS), announced in December 1992, is the first structured global information management system that allows users throughout a business organization to share information, regardless of the platforms, operating systems or databases involved. The product is designed to support companies seeking to simplify and speed the process of bringing a product and/or service to market and will be an important system component for reengineering organizations.

CSC Index

CSC Index, Inc., based in Cambridge (MA) with 750 employees, is an international management consulting firm that assists corporations in achieving dramatic improvements in their operations and financial performance. CSC Index pioneered the business reengineering approach.

CSC Index focuses on three main disciplines: business strategy and operations, information technology, and change management.

- Business strategy and operations includes:
  - Formulating business strategies
  - Redesigning management and operational processes to achieve goals
  - Developing new approaches for working with suppliers and customers to improve speed and service
- Information technology consulting includes:
  - Identifying opportunities for information technology to enable new strategic initiatives to be taken
  - Developing approaches for the competitive application of information technology
- Change management consulting includes:
  - Assessing and developing human resources to meet business needs
  - Building a clear understanding of and commitment to required business changes
  - Creating and implementing new structures for the systems organization

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- In its business reengineering work, CSC Index draws on all three of the disciplines described above.

- Index works primarily for the Fortune 500 manufacturing and service companies in the U.S. and the Financial Times 500 in Europe. The firm has assisted 19 of the 25 largest U.S. corporations.

CSC Research and Advisory Services, based in Cambridge (MA), is a management education service whose sponsors include more than 700 of the world's largest organizations. Executive programs are offered on strategy, reengineering, technology management, organizational change and other topics.

CSC Credit Services

CSC Credit Services, based in Houston (TX), has 1,400 employees and is a major supplier of consumer credit reports and account management services to thousands of credit grantors nationwide.

- As the result of an agreement formed with Equifax during 1988, credit report processing is furnished through Equifax's credit operations.

  - CSC has converted its more than 110 million consumer credit files to Equifax's computer system to create a joint national consumer credit file from which both companies can sell reports from each other's files to credit grantors, with Equifax performing the processing. This joint credit file provides nationwide credit grantors with a single source of credit information, instead of having to deal with multiple sources on a local or regional basis.

  - CSC Credit Services continues to own its credit files and receives all revenues from the sale of the credit information they contain. CSC pays Equifax a processing fee for each report supplied to a credit grantor.

- CSC continues to own and operate 38 credit bureaus. CSC Credit Services also owns 28 collection agencies and provides all processing services for the collection agencies.

- CSC Credit Services is also a leader in supporting the federal government in the collections arena. Since 1987, it has provided collections services to the General Services Administration; it also supports the Department of Education, collecting unpaid student loans for its Western and Midwestern regions.

- CSC Enterprises, formed in December 1990, is a general partnership between CSC, Equifax and Merel Corporation that operates CSC's credit services operations and carries out other business strategies through acquisition and investments.

The Technology Management Group

Through the Technology Management Group, CSC provides a range of outsourcing services, including systems analysis, applications development, network operations and data center management (systems operations) to commercial clients.

Contract examples include the following:

- In September 1995, CSC was awarded a seven-year, $200 million to $300 million contract with James River to manage and enhance the information technology operations of James River's North American consumer products division and corporate headquarters.

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- In July 1995, CSC was awarded a ten-year, $50 million outsourcing contract with The Standard Register Company. CSC will acquire and manage data center, PC desktop and data communications operations at Standard Register's Dayton headquarters.

- In July 1995, CSC was awarded a five-year, $32 million outsourcing contract with Service Corporation International, a Houston-based funeral service organization.

- In July 1995, CSC was awarded a ten-year, $300 million outsourcing contract with Anglian Water, one of the largest water services companies in the U.K. CSC is managing all of Anglian's information technology operations, including mainframes, desktop computing, networks and software applications. In addition, CSC is supplying long-range strategic consulting and systems integration services to help Anglian migrate to a distributed, client/server architecture.

- In July 1995, CSC was awarded a ten-year, $60 million outsourcing contract with John Menzies Retail, a chain of bookstores and magazine outlets in the U.K. CSC will acquire and manage a data center in Edinburgh and provide services ranging from strategic planning to mainframe and desktop management.

- In June 1995, CSC was awarded a ten-year outsourcing contract with Guinness Brewing Great Britain (GBGB). CSC will acquire GBGB's information technology assets, including computers, local-area networks and software, and will maintain and operate GBGB's data center, including midrange operations, applications development and desktop services.

- In June 1995, CSC was awarded a seven-year, $200 million contract to provide outsourcing services to Southern New England Telecommunications (SNET) Corporation. CSC will manage SNET's mainframe and midrange computing systems. As part of the pact, CSC will purchase SNET's 100,000-square-foot data center in Meriden (CT) and will consolidate a second SNET data center in New Haven with the Meriden center.

- In June 1995, CSC was awarded a ten-year, $750 million outsourcing contract with Lucas Industries PLC. CSC will acquire the management consultancy Lucas Engineering & Systems and the Lucas Management Systems project management software business, as well as Lucas' information technology infrastructure, including mainframes, midrange servers, desktops, local- and wide-area networks and a range of applications.

- In March 1995, CSC was awarded a three-year, $3 million outsourcing contract with Grossman's home improvement centers.

- In March 1995, CSC was awarded a ten-year outsourcing contract with United Distillers.

- In February 1995, CSC was awarded a five-year, $9 million outsourcing contract with Toyota Belgium.

- In January 1995, CSC was awarded a five-year, $50 million outsourcing contract with the European division of ICI Paints.

- In January 1995, CSC was awarded an eight-year, $1.5 billion outsourcing contract with Hughes Aircraft to take over mainframes, desktop computers, telecommunications and applications work.

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CSC acquired most of Hughes Aircraft's information technology operations, along with 1,200 employees.

- In January 1995, CSC was awarded a 10-year, $50 million outsourcing contract with Autoglass—the U.K.'s leading supplier of replacement windshields. CSC will help Autoglass revamp its customer services system, in addition to managing its data center operations and overseeing applications development and maintenance, data networks and desktops that support 200 branch offices spanning the U.K.

- In January 1995, CSC was awarded a three-year contract with Inland Revenue to provide desktop computing equipment and services to support the agency's offices across the U.K.

- In January 1995, CSC was awarded a five-year, $10 million outsourcing contract with Polaroid Corporation. CSC will acquire and manage all of Polaroid's IBM mainframe systems supporting its North American and European operations. CSC will manage these systems from its Norwich (CT) data center, providing mainframe operations, technical support and network management.

- In November 1994, CSC was awarded a one-year, $30 million contract with Scott Paper Company of Philadelphia (that has since been extended through 1996), whereby CSC will assume responsibility for all Scott Paper's domestic MIS operations, supporting central computing and manufacturing and development of new systems. Scott's data center activities will be transferred to a CSC data center in Carlstadt (NJ).

- In November 1994, CSC was awarded a ten-year contract by San Diego Gas & Electric (SDG&E) to provide mainframe processing and operations support to SDG&E, a leading West Coast utility. In June 1995, CSC was awarded an additional three-year contract to maintain and upgrade all of SDG&E's desktop operations, providing new hardware and software in addition to help-desk, local-area network and Internet access support.

- In October 1994, CSC was awarded a seven-year, $210 million contract by Mutual Life Insurance Company of New York (MONY) whereby CSC will oversee all of MONY's information technology operations and provide business reengineering services along with developing new applications. The two companies will also pool their skills to launch an "Insurance Technology Center" to develop and market new technology products and services to the life insurance industry.

- In 1991, CSC and General Dynamics Corporation formed a 10-year agreement under which CSC will provide systems operations services to General Dynamics' aerospace and defense units.

  - CSC paid General Dynamics approximately $184 million for facilities, equipment, software and services.

  - The contract generated revenues to CSC of $350 million in fiscal 1994 and $370 million in fiscal 1993.

  - General Dynamics had data centers in Norwich (CT), Fort Worth (TX) and San Diego (CA), and another 28 service sites around the country. These facilities and approximately 2,500 employees of

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General Dynamics Data Systems joined CSC.

- General Dynamics has divested four businesses included under the contract. CSC has negotiated agreements for services with all four organizations.

The Technology Management Group also provides outsourcing, laser printing and disaster recovery services.

- CSC maintains data centers in North Carolina, Massachusetts, Pennsylvania and Ohio.

- In June 1994, CSC acquired Comdisco's remote computing contracts, valued at an estimated $10 million over three years. As part of the agreement, CSC will market Comdisco's business continuity services. In turn, Comdisco will market CSC's item capture service to customers in the New York/New Jersey metropolitan area.

- In June 1993, CSC was awarded a five-year, $2.3 million contract to support NationsBank's 10 item processing centers in the event of a disaster.

- In April 1992, CSC was awarded a ten-year systems operations contract with WCI Steel, Inc. of Warren (OH). The agreement—estimated to bring CSC revenues of $64 million over the life of the contract—calls for CSC to take over leases valued at about $2.5 million for all hardware used in WCI Steel's facility and 51 WCI employees.

The Outsourcing Marketing Division is responsible for marketing CSC's outsourcing resources in the commercial marketplace.

International Business

CSC's European operations provide consulting, software development and systems integration services to national and transnational clients, primarily in Belgium, France, Germany, the Netherlands and the U.K. Contract examples include the following:

- In May 1994, CSC was awarded a three-year, $37 million contract with Belgacom to develop a new billing system and related support systems for Belgium's state-owned telephone company. Teaming with CSC on the project will be AT&T (which will provide NCR hardware to support the new system) and Coopers & Lybrand (which will oversee the quality assurance).

- In March 1994, CSC was awarded a ten-year, $1.5 billion contract with British Aerospace (BAe) that calls for CSC to be BAe's strategic partner in providing information technology services to support its aerospace and defense businesses.

  - CSC is overseeing the development, maintenance and operation of applications data centers, networks and distributed computing across BAe aerospace and defense units.

  - As part of the agreement, CSC is to pay BAe $112 million for its existing information technology resources, including facilities, equipment and software. In addition, about 1,500 BAe employees are transferring to CSC.

  - A new CSC division called Aerospace Systems Division has been created to manage the contract.

- In January 1994, CSC was awarded a five-year, $100 million contract with Ford of

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Europe Parts & Services whereby CSC will oversee the majority of information technology functions within Ford Parts & Services Operations, which spans all of Europe.

- In November 1993, CSC was awarded a five-year, $90 million outsourcing contract with RAET—one of the top three information technology services companies in the Netherlands—to acquire and manage RAET's computer center, and will provide information technology services to both RAET and its clients.

- In February 1993, CSC was awarded an 11-year outsourcing contract estimated at between $150 million and $200 million with BhS—a leading retailer based in the U.K.—to manage BhS' information technology requirements and take over a data center and network connecting 136 retail stores.

Data Centers

The Technology Management Group operates three data centers in San Diego, Ft. Worth and Norwich that operate numerous computer systems, including the following:

- IBM 3090, 3084, 3081, 4361, 4381, 9221
- Amdahl 5990 5995
- Cray XMP-28
- CYBER 180-855
- Convex C210
- DEC, IBM, HP, NCR, Harris, Tandem, Stratus and other midrange systems
- Sun, HP, DEC and other workstations

CSC Credit Services' data center in Houston uses IBM 4381, DEC VAX 8650 and DEC VAX-II/785 systems.

The Systems Engineering Division has an Amdahl 5870 installed in Lanham (MD) for claims processing and related insurance functions.

CSC TACS has an IBM 4081 installed in Los Angeles.

CSC Logic, Inc. has an IBM 3090-200E, MVS/ESA installed in Dallas.

In support of its research and development efforts in software engineering, supercomputing and other fields, CSC's Systems Group at Falls Church (VA) operates several laboratories that evaluate equipment lent by manufacturers. Company-owned equipment at this location includes a Relational 1000 and a DEC MicroVAX II.

Alliances

CSC has alliances with a range of vendors for different projects, including Wang, Siemens-Nixdorf, Oracle, Hewlett-Packard and Sun Microsystems.

In September 1995, CSC was named the first independent provider of SAS Institute software and consulting services.

Competitors

Major competitors by primary service/product area include the following:

- Federal government professional services: TRW, Hughes Aircraft, IBM, PRC, Electronic Data Systems (EDS), General Electric, AT&T, Unisys, Boeing Information Services and Loral

- Commercial consulting, systems integration and outsourcing: Andersen Consulting, Booz Allen & Hamilton, Coopers & Lybrand, Deloitte & Touche, EDS, Ernst & Young, IBM, KPMG, McKinsey & Co., Perot Systems and Unisys

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- Medicaid claims processing: Blue Cross/Blue Shield and EDS
- Credit reporting service: TRW Information Services and TransUnion
- Health care systems: Jergovan and Blair, Inc.

Assessment

CSC's strengths include:

- Offering the full spectrum of services—from business reengineering to facilities management
- A strong technology thrust, focusing on current technical issues such as object-oriented, client/server technology and rapid application development
- A leadership role in the outsourcing market and managing large, highly complex projects
- Continued strength in the federal sector
- Independence from any hardware manufacturer

Challenges over the coming year include:

- Continuing to build strong European groups amidst uncertainties about near-term economic recovery
- Handling the increased competitive environment, especially in systems integration and outsourcing

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Vendor Profile

A Publication from INPUT's Vendor Analysis Program – U.S.

December 1995

Computer Sciences Corporation

Chairman: William R. Hoover
President & CEO: Van B. Honeycutt
2100 East Grand Avenue
El Segundo, CA 90245
Phone: (310) 615-0311
Fax: (310) 322-9805

Status:	Public
Employees:	32,900 (4/95)
Revenue:	$ 3,372,502,000
Fiscal Year End:	3/31/95

Key Points

- Computer Sciences Corporation (CSC), founded in 1959, is the largest independent provider of professional services, including management consulting, business reengineering and information systems consulting, systems integration and outsourcing services.
- In fiscal 1995, revenue from CSC's commercial operations grew more than 38% to $1.88 billion, representing 56% of CSC's total revenue. The biggest increase came in the international sector, where revenue more than doubled, due primarily to significant increases in outsourcing and consulting.
- Revenue from the U.S. government increased 22% during fiscal 1995 to $1.49 billion, led by CSC's largest federal contract ever—an eight-year, $1.1 billion contract to operate NASA's Marshall Space Flight Center in Huntsville (AL).
- CSC's management consulting and systems integration activities were expanded both domestically and internationally during fiscal 1995 with the acquisitions of The DiBianca Berkman Group, Ouroumoff Consultants and Ouroumoff International, Weston Group and Ploenzke AG. Together these five companies bring more than $200

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million in annual revenue and 1,600 professional staff to CSC.

- William R. Hoover, who has been chief executive officer of CSC since 1972, retired as CEO on March 31, 1995, but continues as chairman of the board. Van B. Honeycutt, who has been president and chief operating officer since June 1993, is now CEO and president.

Company Description

Serving government and commercial clients, CSC provides strategy and management consulting, business reengineering, information technology consulting, requirements analysis, software development, systems engineering and integration, turnkey computer/communications systems and systems operations (outsourcing) services. The company also provides industry-specific proprietary products and services for credit reporting, claims processing, health maintenance organizations, discrete manufacturing, retail, transportation, distribution, utilities and telecommunications.

Organization and Structure

CSC's organization structure is shown on the following page. The company currently provides its services through the following units:

- The Systems Group, headquartered in Falls Church (VA), is the company's primary resource for computer and communications technology. The group has five divisions that primarily serve the U.S. government.

- The Consulting Group, headquartered in Cambridge (MA), offers systems integration and technology consulting services to the commercial marketplace.

- CSC Index, headquartered in Cambridge (MA), provides management consulting and business reengineering services worldwide.

- The Industry Services Group, headquartered in Houston (TX), serves vertical markets with industry-specific services, principally directed at the insurance, health care and consumer finance industries.

- The Technology Management Group, headquartered in Falls Church (VA), is responsible for overseeing all commercial outsourcing-related activities in North America.

- Integrated Business Services, headquartered in Falls Church (VA) was created in April 1995 to serve as the focal point for presenting CSC's range of services to selected companies in the commercial marketplace.

- CSC Europe, headquartered in London, provides consulting, systems integration and outsourcing services to public and private businesses, primarily in Europe. This group has seven divisions spanning Belgium, France, Germany and the Netherlands.

- CSC Australia, headquartered in Sydney, provides a range of management consulting, systems integration and outsourcing services to the Australian marketplace.

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Computer Sciences Corporation Organization Chart

Company Strategy

CSC's strategies are to maintain its dominant position in the U.S. federal marketplace (which contributed 44% of fiscal 1995 revenue) while expanding its market share in non-federal markets through internal growth and acquisitions. The company is dedicated to being the best in technology, business reengineering and project management.

CSC management has set the objective of becoming one of the top two or three companies in the commercial markets for consulting, systems integration, outsourcing and related professional services in the U.S. and Europe.

- Three factors in the global marketplace are driving strong commercial opportunities for CSC:
  - A strong demand for business solutions such as reengineering, outsourcing and the development of systems that bring new efficiencies to maintain market share and control costs;
  - The demand for consultants, systems integrators and outsourcers to help rethink and reshape strategies to keep up with new competition;
  - The need to respond innovatively to more sophisticated and demanding consumers.
- In the area of commercial business reengineering, CSC will continue to refine and enhance its business process reengineering practice, combining its consulting expertise with its industry and technology skills and will use CSC Index to break new ground.
- In the area of commercial systems consulting and integration, CSC's strategies include:
  - Bringing leading-edge, commercially proven technologies to clients
  - Giving clients the business strategy and reengineering consulting they need to ensure that their systems are aligned with their business goals
  - Maintaining the best practices and methodologies to build comprehensive systems fast
  - Staying closely attuned to each client's industry, offering pre-engineered software solutions when needed
  - Providing the best program management, applying CSC's skills in building the largest, most complex systems for the federal marketplace to the commercial world
- In the commercial outsourcing area, CSC's primary strategies include:
  - Helping customers rethink their business goals, viewing outsourcing as a way to add value to their enterprise
  - Promote awareness of a key reason most clients say they outsource with CSC—its flexibility and exceptional focus on accommodating customers
  - Approach clients around specific industry strengths, focusing on nine specialty areas that include aerospace, banking, consumer goods, health care, insurance, manufacturing, retail, telecommunications and utilities
  - Seek innovative partnerships, risk-sharing agreements and strategic alliances
- In the commercial industry services area, strategies include:

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- *Credit services*—maintaining a strong partnership with Equifax to provide high-quality consumer credit files
- *Financial services*—expand traditional focus on insurance to include new markets such as banking
- *Health care*—build on the emerging trend of alliances being forged among doctors, hospitals, clinics and insurance companies to reduce costs and improve quality of care

- Key technology issues being addressed by CSC include client/server, object-oriented programming and rapid application development. About 80% of all CSC' new commercial business is client/server. The company has established a Center of Excellence to support internal research and is expanding its new CSC Catalyst℠ methodology to promote object-oriented programming.

CSC's strategy for the federal market includes:

- In the federal business reengineering area, CSC's strategies include:
  - Meeting with top executives from the major civil, defense and intelligence agencies to educate them about what real reengineering can do and how it can work for them
  - Initiate reengineering tasks at small to midsized agencies where radical change can happen quickly
  - Work with existing and potential clients to expand their thinking about the value CSC's reengineering skills can bring
- In the federal systems integration area, CSC strategies include:
  - Focusing on the best methodologies, tools and off-the-shelf products to produce real results for clients better, faster and cheaper than competitors
  - Be the experts in dealing with legacy systems
  - Stressing CSC's strong record in winning business across every sector of the federal marketplace
  - Be the company that provides the best value by offering the full breadth of CSC's skills and technologies
- In the federal professional services area, CSC's strategy includes:
  - Being the company that offers the broadest range of support services
  - Maintaining CSC's lead as the nation's largest test range services contractor
  - Knowing customers and their unique needs better than any other company in the industry
- In the federal outsourcing market, CSC's strategies include:
  - Educating the marketplace about CSC's commercial success and how this can be tailored to get results for the government
  - Building consensus around CSC's definition of federal outsourcing and its approach to the marketplace, which involves linking an agency's assorted technology-related contracts into a single, large services agreement with guaranteed cost savings
  - On a small scale, building some demonstrable successes over the next year

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in the federal arena to showcase the kinds of savings CSC can achieve

- Helping government agencies develop the new kinds of contracting and monitoring requirements they need to support a new way of doing business

Financials

CSC's fiscal 1995 revenue reached $3.37 billion, a 31% increase over fiscal 1994 revenue of $2.58 billion.

- Net income for fiscal 1995 was $110.7 million, up 22% over fiscal 1994 net income of $90.9 million (before the cumulative effect of a change in the method of accounting for income taxes). After the change, net income for fiscal 1994 was $95.8 million.

- In the five-year summary below, financials include results of businesses acquired from their respective dates of acquisition, as well as the results of businesses sold up to the date of their divestiture.

Computer Sciences Corporation
Five-Year Financial Summary
($ Millions, except per share data)

	Fiscal Year				
Item	3/31/95	4/1/94	4/2/93	4/3/92	3/29/91
Revenue	$3,372.5	$2,582.7	$2,479.8	$2,113.4	$1,737.8
• Percent change from previous year	31%	4%	17%	22%	16%
Income before taxes	$173.7	$149.1	$128.2	$109.2	$102.5
• Percent change from previous year	16%	16%	17%	7%	(1%)
Net income	$110.7	$95.8	$78.1	$68.2	$65.0
• Percent change from previous year	16%	(a) 23%	15%	5%	(1%)
Earnings per share	$2.09	$1.86	$1.55	$1.37	$1.34
• Percent change from previous year	12%	(a) 20%	13%	2%	(1%)

(a) Includes a $4.9 million ($0.09 per share) cumulative effect of a change in the method of accounting for income taxes.

Revenue growth for fiscal 1995 was due to expansion of internal activities and acquisitions.

- Revenue from the U.S. government increased 22% to $1.49 billion, led by the award of a NASA contract valued at $1.1 billion over eight years if all options are exercised. The higher federal revenue also includes the effect of the acquisition of the Professional Services Group of Atlantic Research Corporation at the end of the third quarter of fiscal 1994. During fiscal 1995, CSC was awarded federal contracts with a value of $1.8 billion, compared with $2.0 billion the prior year.

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- Commercial revenue comprised 56% of total revenue for fiscal 1995. Domestic commercial revenues increased 13% to $1.17 billion in fiscal 1995, led by large increases in commercial outsourcing. Notable outsourcing contracts providing this revenue improvement were signed with Hughes Aircraft Company, American Medical Response, Scott Paper, San Diego Gas & Electric, the Mutual Life Insurance Company of New York and Polaroid. Increases were offset by the impact of the New Jersey JUA/MTF contract expiration.

- International revenues increased 122% to $713 million for fiscal 1995. The bulk of the growth came from significant increases in outsourcing and consulting. International clients adding to revenue include British Aerospace, Ford of Europe, ICI Paints and Toyota of Belgium.

During the fourth quarter of fiscal 1995, CSC received $196.3 million in proceeds from a four million common share public offering. Approximately 50% of the proceeds were applied to reduce bridge financing used to support CSC's acquisition of Ploenzke AG and the Hughes Aircraft Company outsourcing contract.

Interim Results

Revenue for the six months ending September 30, 1995 reached $1,971 million, a 29% increase over $1,527 million for the same period in 1994. Net income was $58.1 million, a 30% increase over $44.7 million for the same period a year ago.

- Federal revenues, representing 38% of total revenue, rose 8% to $755.6 million.

- Domestic commercial revenue rose 35% to $712.8 million. Growth was fueled primarily by domestic outsourcing and consulting activities.

- International revenue jumped 68% to $503.1 million, mainly due to increased international outsourcing business.

Revenue Analysis by Product/Service

A three-year summary of source of revenue, as reported by CSC, is shown below.

Computer Sciences Corporation
Three-Year Source of Revenue Summary
($ Millions)

	Fiscal Year					
	3/31/95		4/1/94		4/2/93	
Product/Service	Revenue $	Percent of Total	Revenue $	Percent of Total	Revenue $	Percent of Total
Professional services	$1,515	45%	$1,136	44%	$901	37%
Systems integration	705	21%	697	27%	617	25%
Outsourcing	1,153	34%	750	29%	962	38%
Total	$3,373	100%	$2,583	100%	$2,480	100%

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INPUT estimates that CSC's $2.65 billion in fiscal 1995 U.S. information services revenue was derived approximately as follows:

Professional services	32%
Systems integration	30%
Systems operations	30%
Processing/network services	6%
Turnkey systems	2%
	100%

Market Financials

Approximately 44% of CSC's fiscal 1995 revenue was derived from the federal government and 56% from commercial sources. A three-year summary of source of revenue by industry appears below.

Computer Sciences Corporation
Three-Year Industry Market Source of Revenue Summary
($ Millions)

	Fiscal Year					
	3/3/95		4/1/94		4/2/93	
Industry/Market	Revenue $	Percent of Total	Revenue $	Percent of Total	Revenue $	Percent of Total
Federal						
- Department of Defense	$846.5	25%	$715.6	28%	$675.7	27%
- NASA	312.4	9%	222.0	9%	260.7	11%
- Civil agencies	330.5	10%	285.6	11%	318.0	13%
	$1,489.4	44%	$1,223.2	48%	$1,254.4	51%
Commercial						
- U.S.	$1,169.8	35%	$1,038.5	40%	$990.3	40%
- International	713.3	21%	321.0	12%	235.1	9%
	$1,883.1	56%	$1,359.5	52%	$1,135.4	49%
Total	$3,372.5	100%	$2,582.7	100%	$2,479.8	100%

Commercial revenue is derived from Fortune 1000 companies in manufacturing, insurance, banking and finance, telecommunications and utilities; and the retail, wholesale/ distribution, medical and services industries.

A further breakdown of CSC's $1.17 billion in U.S. commercial revenue for fiscal 1995 is estimated as follows:

Industry/Market	Percent of Revenue
Manufacturing and distribution	43%
Banking and finance	16%
Medical	12%
Insurance	10%
Telecommunications	10%
Other	9%
Total	100%

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International revenue is derived from foreign governments, financial institutions, transportation companies and manufacturers.

Geographic Markets

Approximately 79% of CSC's fiscal 1995 revenue was derived from the U.S. and 21% from international markets. A three-year summary of geographic sources of revenue is shown below.

CSC maintains offices in more than 300 locations throughout the U.S. and has approximately 575 offices worldwide. Operations span the U.K., Belgium, France, Germany, the Netherlands, Canada and Australia.

Computer Sciences Corporation
Three-Year Geographic Source of Revenue Summary
($ Millions)

	Fiscal Year					
	3/31/95		4/1/94		4/2/93	
Geographic Market	Revenue $	Percent of Total	Revenue $	Percent of Total	Revenue $	Percent of Total
U.S.	$2,659.2	79%	$2,262.0	88%	$2,244.7	91%
International	713.3	21%	320.7	12%	235.1	9%
Total	$3,372.5	100%	$2,582.7	100%	$2,479.8	100%

Acquisitions

In July 1995, CSC acquired the Oxford Consortium, the information services unit of the Anglia and Oxford Regional Health Authority.

- The Oxford Consortium, based in the U.K., supports about 80 surrounding hospitals and health care organizations with a range of administrative services such as finance, human resources, public relations and information technology.

- Estimated annual revenue from contracts held by the Oxford Consortium are $15 million. In addition to taking over these contracts, CSC will also acquire the consortium's data center in Oxford. About 230 employees specializing in health care and information technology services will also join CSC.

- The new organization, based in Oxford, has been named The CSC Oxford Consortium.

In March 1995, CSC acquired Weston Group of Westport (CT), a consumer goods consulting firm specializing in business sales and marketing strategy. Weston, with 44 employees and annual revenue of approximately $10 million, is now a national practice in CSC's consulting and systems integration unit.

In January 1995, CSC acquired a majority interest in Ploenzke AG, Germany's largest independent computer services firm.

- Ploenzke AG specializes in consulting, systems integration and custom software development. The company serves commercial and public sector clients.

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- A key benefit of the acquisition is Ploenzke's strength in providing implementation services for software products developed by SAP.

- With annual revenue of $170 million and a staff of 1,400 information technology experts, Ploenzke AG has 19 offices spanning Germany. It also has subsidiaries in Switzerland, Austria, Spain and Holland, which CSC will acquire as part of the agreement.

In January 1995, CSC acquired Ouroumoff International, a sister company of Ouroumoff Consultants, which was acquired by CSC in August 1994.

- Based in Paris, Ouroumoff International supports clients in Eastern Europe, the Pacific Rim and South America. It specializes in helping public and private sector clients plan the infrastructure needed to support projects spanning telecommunications, manufacturing, transportation, utilities and defense.

- Clients include the World Bank and the International Monetary Fund, both based in Washington, D.C., and the European Community.

In August 1994, CSC acquired Ouroumoff Consultants, one of the top 10 management consulting firms in France. Terms of the acquisition were not disclosed.

- Ouroumoff, with 80 employees and annual revenue of approximately $18 million, specializes in business process reengineering, redesign, information technology change management, logistics, quality management and marketing.

- Services are provided throughout Europe in various industry sectors, including manufacturing, distribution, retail, utilities and government.

- The acquisition expands CSC's professional services offerings in Europe. CSC's revenues in France will increase by more than 50% with the acquisition.

- Ouroumoff's operations have been merged into CSC's French Division.

In June 1994, CSC acquired the remote computing services business of Comdisco's Comdisco Computing Services Corporation.

- CSC's CSC CompuSource outsourcing and disaster recovery services unit also bought Comdisco's remote computing contracts, valued at an estimated $10 million over three years, and is leasing Comdisco's 77,000-square-foot processing facility in Carlstadt (NJ) and related hardware.

- Under the terms of the agreement, CSC CompuSource is marketing Comdisco's business continuity services, and Comdisco Disaster Recovery Services markets CSC CompuSource's item capture service in New York/New Jersey.

- The acquisition strengthens CSC's outsourcing presence in the Northeast and positions the company to pursue additional opportunities in the region. CSC's co-marketing arrangement with Comdisco demonstrates CSC's goal to become the leader in item processing.

In June 1994, CSC acquired The DiBianca-Berkman Group Inc. of Flemington (NJ), a leader in the practice of corporate cultural change and executive alignment as it relates to business reengineering. The private firm, with annual revenue of approximately $8 million, is now part of CSC Index.

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In January 1994, CSC acquired the Professional Services Group (PSG)—an information technology company based in Rockville (MD)—from Atlantic Research Corporation, a unit of Sequa Corporation. The acquisition added about $35 million to CSC's federal business base; 16 new CSC offices in the Washington, D.C. area and six international offices (three in Canada, two in the U.K. and one in Greece); and core capabilities in command, control, communications and intelligence and information systems for the Department of Defense, civil agencies of the U.S. government, and international clients.

Divestitures

In June 1994, CSC sold its tax processing operations to Compucraft Data Services of Torrance (CA).

Employees

As of April 1995, CSC had approximately 32,900 employees.

As of October 1995, CSC had approximately 33,000 employees, segmented as follows:

Systems Group	54%
Industry Services Group	7%
Consulting Group	7%
Technology Management Group	12%
CSC Europe	16%
CSC Australia	3%
Other	1%
	100%

Key Products and Services

CSC's services are summarized according to federal and commercial lines of business.

U.S. Federal Government Business

The Systems Group is the company's primary provider of information systems and services to the federal government. Services provided include systems engineering and integration, the development of custom-designed computer-based systems and communications systems, operational support of clients' technical activities, clients' computer facilities management and turnkey system development.

The Systems Group consists of four units:

- The Integrated Systems Division, based in Moorestown (NJ), designs, implements and integrates systems for office automation, digital imaging and administrative and engineering support and for military uses such as weapons control, logistics, wargaming and command, control and communications (C^3I).
- The System Sciences Division, headquartered in Calverton (MD), provides systems engineering, analysis, software development and end-to-end integrated data systems and services, primarily to aerospace clients such as NASA and the FAA.
- The Systems Engineering Division, headquartered in Falls Church (VA), performs high-level technical management projects, known as systems engineering and technical assistance (SETA), for the government. The division also performs research and development in systems and software technologies and special activities in signal processing, communications systems and information processing. As of April 1995, the division took over responsibility for the National Flood Insurance Program and the federal Black Lung program, both located in Lanham (MD), from CSC's former Health and Administrative Services Division.

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- The Applied Technology Division, headquartered in Falls Church (VA), provides systems operations (facilities management) services, primarily for NASA; provides operations and maintenance services to aircraft and weapons test centers; and provides software development support to federal agencies. This division, CSC's largest business unit, has about 9,000 employees.

CSC and the National Computer Security Association (NCSA) have launched the National INFOSEC Exchange—a program to promote the open exchange of system security information between private industry and the federal government.

Significant contract awards for the group include the following:

- In September 1995, CSC was awarded a six-year, $90 million contract to provide software engineering services to support the Department of Defense.

- In August 1995, CSC was awarded an eight-year, $58.1 million contract with the Defense Commissary Agency. CSC will team with a leading grocery chain to help the military modernize systems for more than 300 commissaries worldwide.

- In July 1995, CSC was awarded a five-year, $300 million task order contract to provide technical information systems security applications to the Department of Defense, along with other federal agencies and departments.

- In July 1995, CSC was awarded a five-year, $21.3 million contract to provide engineering and program management support to the U.S. Space and Naval Warfare Systems Command in Arlington (VA).

- In June 1995, CSC was named one of 12 vendors to provide information processing support services to the Department of the Treasury and other Treasury bureaus. CSC's share of the five-year, task order contract is $200 million. CSC will provide information systems, engineering, telecommunications and security services to help the IRS move from mainframe, paper-based systems to new distributed workstations.

- In June 1995, a joint venture headed by CSC was awarded a five-year, $460 million contract to operate the computer center, supporting management information systems and providing environmental services, at the Air Force Arnold Engineering Development Center in Tullahoma (TN). Other members of the joint venture include DynCorp in Reston (VA) and General Physics Corp. in Columbia (MD).

- In May 1995, CSC was selected by Lockheed to provide computer support and upgrades to the Aegis Combat Weapons System and other Navy AEGIS programs. CSC will provide computer program design, coding, integration, support and testing of Aegis upgrades, combat system requirements and critical experiments. The contract is a continuation of work CSC has performed in support of the Aegis program for 25 years.

- In April 1995, CSC was awarded a subcontract by DynCorp to perform data processing and software development for DynCorp in support of the Department of Energy's Office of Information Management in Germantown (MD).

- In March 1995, CSC was awarded a five-year, $67.7 million contract by NASA to provide engineering support services at

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NASA's Wallops Flight Facility in Virginia. CSC has supported the facility since 1970.

- In March 1995, CSC was awarded a five-year, $24.8 million contract to provide systems engineering and integration services for the Navy's Operations Support System (OSS) development program.

- In January 1995, CSC was awarded a seven-year, $21.3 million contract to provide computer system and software integration development and support for marine safety and law enforcement missions for the U.S. Coast Guard.

- In December 1994, CSC was awarded a five-year, $58.1 million contact with the Health Care Financing Administration (HCFA) to provide facility management services to support the operation of Medicare and Medicaid programs.

- In August 1994, CSC was awarded a four-year, $157 million contract by the General Services Administration (GSA) to provide business and scientific support to dozens of federal agencies in 13 midwestern and southeastern states that use GSA as a central resource for computer services.

- In July 1994, CSC was awarded a five-year, $38 million contract with the U.S. Navy to provide networking and computer support for financial and management systems for the Navy's research laboratory.

- In May 1994, CSC was awarded a five-year, $94 million contract with the DoD to provide modeling and simulation tools to help the Joint Staff and Unified and Specified Commands test and assess different wartime contingency plans.

- In May 1994, CSC was awarded an eight-year, $1.1 billion contract with NASA to provide information systems support at the NASA Marshall Space Flight Center in Huntsville (AL).

- In March 1994, CSC was awarded a five-year, $97.5 million contract with the U.S. Navy to provide systems engineering and software support to the Navy's AEGIS combat weapons program.

- In November 1993, an industry team headed by CSC was awarded one of six Defense Technical Integration Services (DTIS) contracts by the Defense Information Systems Agency (DISA).

  - The contracts provide the tools to move the DoD and other government agencies into a multitiered, open systems environment. The contracts were awarded for one year, with six one-year extension options, and have a combined maximum value of $935 million.

  - CSC, leading a team of 17 subcontractors, will perform about 70% of the work on its contract.

- In July 1993, CSC was awarded a seven-and-one-half-year, $200 million contract to operate and maintain NASA's Langley Central Scientific Computing Complex in Hampton (VA). CSC has supported NASA Langley for more than 20 years and has been a NASA contractor for more than 30 years.

- In July 1993, CSC was awarded a six-year, $566 million contract to provide range technical services to the Air Force Eastern Range at Patrick Air Force Base in Cocoa Beach (FL) through a joint venture with Raytheon.

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- In June 1993, CSC was awarded a four-year, $50 million contract to continue processing health claims and disability benefits for the U.S. Department of Labor's Federal Black Lung Program.

- CSC has provided statistical support services for the Federal Emergency Management Agency's (FEMA) National Flood Insurance Program since 1983. In May 1993, CSC was awarded a five-year, $48.6 million renewal contract by FEMA.

- In April 1993, CSC was awarded a 10-year, $400 million contract by the Bureau of Land Management to provide a new Automated Land and Mineral Record System.

- In April 1992, CSC was awarded an eight-year, $575 million contract by the U.S. Air Force to provide engineering and instrumentation in support of flight testing and training programs and maintenance and operation of data collection and processing systems at the Edwards Flight Test Center and Utah Test and Training Range, plus associated remote locations.

CSC is a member of the AT&T team selected in December 1988 to replace the federal government's current telecommunications system. Known as FTS 2000, the program provides government agencies with an integrated system for voice, data and video services. CSC is providing a billing system and other software services for FTS 2000. CSC's Systems Group and Consulting Group are engaged in the FTS 2000 program.

U.S. Commercial Business

CSC's services to domestic commercial clients are provided primarily through the Consulting Group, CSC Index, the Industry Services Group and the Technology Management Group.

Consulting Group

The Consulting Group provides systems integration, requirements analysis, system design, software development, system engineering, communications system engineering and facilities management for nonfederal organizations worldwide. These activities are performed by two units—Consulting & Systems Integration and Communications Industry Services.

Consulting & Systems Integration, based in Waltham (MA) with 1,900 employees, combines strong industry expertise with deep technology capabilities to help Fortune 1000 companies solve critical business problems.

- The unit provides services in three broad areas—management consulting, systems integration and technology consulting.

  - Management consulting services include:

    · Industry consulting
    · Business process redesign
    · Change management
    · IT planning and strategy
    · TQM/business process improvement
    · Technical architecture development
    · Business architecture development
    · IT reengineering

  - Systems integration services include:

    · Project and program management and implementation
    · Conversion and migration planning
    · Package evaluation, selection and implementation
    · Legacy system migration
    · Software reengineering
    · Transitional outsourcing

  - Technology consulting services include:

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- Database consulting
- Performance engineering
- Network architecture and design
- Systems architecture and design
- Systems management
- Application maintenance outsourcing
- Staff support

- The unit services a range of industries, including consumer goods, distribution and logistics, financial services, manufacturing, pharmaceuticals, retail, telecommunications and utilities. CSC Consulting also serves state and local governments.

- In September 1995, CSC was awarded a contract with Holiday Inn to provide a sales force automation system to streamline the hotel chain's corporate and group sales process.

- In February 1995, CSC was awarded a four-year, $100 million contract with BhS, a clothing and accessories retailer, to provide systems integration services based on recommendations made by CSC Index to increase profits and speed the time it takes to get products to customers.

- CSC has had a continuous contractual relationship with AT&T for over 20 years.

- For U.S. Sprint, CSC is developing a system that automates service requests for consumers and businesses.

- In February 1994, CSC Consulting was awarded a ten-year subcontract with Fleet Financial Group to help redesign and streamline existing tax processes and develop a new income tax processing system for the state of New York.

CSC Impact provides information technology services primarily to business and corporate information technology executives.

- Services are delivered in three primary areas:

  - Helping organizations reposition their information technology activities in support of business reengineering initiatives

  - Delivering assessment and planning support so that senior information systems and business executives can more closely align technology investments, structure and management practices with strategic business objectives

  - Identifying innovations in information technology that businesses can use to exploit new markets or improve internal operations.

Communications Industry Services (formerly CSC Intelicom Inc.) is based in Bethesda (MD) and specializes in products and services to telecommunications firms. With 600 employees, the unit provides applications software products and associated support services to the regional Bell operating companies, major independents and interexchange carriers in North America and Europe.

- CSC also markets ISIS™, a billing and administrative support system for the wireless communications market, including cellular, GSM cellular, PCNs and paging applications. ISIS runs on a range of systems, from PCs to mainframes.

- TRIS+™, acquired in August 1992 with BankIllinois Company, is a wireless billing

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system for midsized cellular carriers that runs on a distributed basis.

- NetCharge™ is a billing system for wireline providers.

- In September 1995, CSC was awarded a five-year, $50 million contract to provide enhanced fax services to support U S WEST residential and business customers. CSC will also oversee business operations, customer service, billing and technology development.

- In July 1995, CSC was awarded a three-year, $26 million contract with BellSouth to install a work force management system to support BellSouth's field technicians.

- In November 1994, CSC announced a five-year, $50 million contract with Grupo Iusacell, Mexico's leading cellular phone company, to provide wireless billing and administration services.

- In March 1994, CSC announced a two-year plan to build *Open***BASE**™—the first open systems platform to support billing and administration tasks in the telecommunications arena. CSC has alliances with HP, AT&T Global Information Solutions, DEC, Oracle and Ingres (Computer Associates) to support the effort.

- In March 1994, AT&T's Network Systems Group chose CSC to provide billing and business management systems and related services to support wireless and wireline telecommunications providers worldwide. The agreement is expected to create revenue for CSC of more than $60 million over the next three years.

- In August 1994, CSC Intelicom was awarded a contract with Qatar Public Telecommunications Corp. to provide wireless billing and administration systems in the Middle East. The contract is initially valued at $2 million for implementation of CSC's ISIS wireless billing system.

- In March 1993, CSC signed a marketing agreement with Davox Corp. (Billerica, MA), which specializes in integrated inbound/outbound calling systems.

- In November 1993, CSC was awarded a four-year, $25 million contract from Nextel Communications, Inc. to develop a business management system that streamlines the way cellular customers are billed.

Enterprise CALS (ECALS), announced in December 1992, is the first structured global information management system that allows users throughout a business organization to share information, regardless of platforms, operating systems or databases involved. The product is designed to support companies seeking to simplify and speed the process of bringing a product and/or service to market and will be an important system component for reengineering organizations.

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CSC Index

CSC Index, Inc., based in Cambridge (MA) with 750 employees, is an international management consulting firm that assists corporations in achieving dramatic improvements in their operations and financial performance. CSC Index pioneered the business reengineering approach.

CSC Index focuses on three main disciplines: business strategy and operations, information technology, and change management.

- Business strategy and operations includes:
  - Formulating business strategies
  - Redesigning management and operational processes to achieve goals
  - Developing new approaches for working with suppliers and customers to improve speed and service
- Information technology consulting includes:
  - Identifying opportunities for information technology to enable new strategic initiatives to be taken
  - Developing approaches for the competitive application of information technology
- Change management consulting includes:
  - Assessing and developing human resources to meet business needs
  - Building a clear understanding of and commitment to required business changes
  - Creating and implementing new structures for the systems organization

- In its business reengineering work, CSC Index draws on all three of the disciplines described above.
- Index works primarily for the Fortune 500 manufacturing and service companies in the U.S. and the Financial Times 500 in Europe. The firm has assisted 19 of the 25 largest U.S. corporations.

CSC Research and Advisory Services, based in Cambridge (MA), is a management education service whose sponsors include more than 700 of the world's largest organizations. Executive programs are offered on strategy, reengineering, technology management, organizational change and other topics.

Industry Services Group

The Industry Services Group serves vertical markets with outsourcing and industry-specific services, principally directed at the insurance, health care and consumer finance industries, through three units.

CSC Logic, Inc., with 250 employees, provides systems operations, processing services and applications software products for the administration of life and disability insurance for credit loans and mortgages, collateral protection insurance and insurance for automobile manufacturers' warranties.

- The majority of CSC Logic's business is from full administration (systems operations) services, followed by processing services and software licensing. CSC Logic's CALS-II software is available for IBM and compatible mainframes and microcomputers and through CSC Logic's data center in Dallas.
- CSC Logic is participating in a $39.7 million, three-year contract from the

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Resolution Trust Corporation to provide processing and asset management services for assets of failed thrifts in Texas, Louisiana and Mississippi.

- In September 1995, CSC was awarded a seven-year, $35 million contract with First National Bank of Chicago to support the bank's reengineering efforts and establish common systems to support its financial reporting operations.

- CSC Logic currently has approximately 100 clients, including insurance companies, financial institutions and financial subsidiaries of automobile manufacturers.

CSC Healthcare Systems, Inc., with 860 employees and estimated annual revenue of $40 million, provides outsourcing, systems integration and software products for the managed care health care environment. This unit also performs all work with the New York State Department of Social Services—and all related health care work—that was provided by the former Health and Administrative Services Division.

- Software products provided through CSC Healthcare Systems are primarily focused on managed care and include the following:

  - Managed Health Care (MHC) is a UNIX-based managed care claims and administration system. The target market for MHC is HMOs, IPAs, Local Delivery Systems, PHOs and Prepaid Group Practices. There are more than 120 MHC installations in 40 states.

  - Managed Health Care Information Systems (MHS) is an IBM mainframe and AS/400-based managed care claims and administration system for managed care organizations. There are more than 60 MHS installations.

  - Ambulatory Care Group Case Mix System (ACG) is a case-mix methodology developed at Johns Hopkins University for which CSC Healthcare Systems is the exclusive distributor. The ACG system can be used to compare providers, develop group rates for health care services and forecast the demand for care.

  - Focal Point™ Decision Support System is a data management and analysis tool that provides access to medical utilization and cost information.

- Recent health care-related outsourcing contracts include the following:

  - In July 1995, CSC was awarded a five-year, $160 million contract with National Health Services of Scotland to provide information management services to the country's hospitals.

  - In July 1994, CSC was awarded a seven-year, $55 million outsourcing contract with American Medical Response, a leading provider of emergency pre-hospital medical care and general ambulance services, to develop and maintain a system and national network that will manage the company's claims processing, billing and receivables operation.

  - In June 1994, CSC was awarded a contract with the Joint Commission on Accreditation of Healthcare Organizations to receive, store and process data for the Joint Commission's Indicator Measurement System, a national reference database designed to

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measure hospital performance, stimulate improvement in patient care and eventually generate "report cards" on quality for consumers and purchasers of health care.

- In December 1994, CSC signed a five-year contract with United Healthcare Corp. to process health care claims for the United Mine Workers of America Combined Benefit Fund.

- Since 1986, CSC has acted as fiscal agent for the New York State Department of Social Services' Medicaid program.

CSC Credit Services, with 1,400 employees, is a major supplier of consumer credit reports and account management services to thousands of credit grantors nationwide.

- As the result of an agreement formed with Equifax during 1988, credit report processing is furnished through Equifax's credit operations.

  - CSC has converted its more than 110 million consumer credit files to Equifax's computer system to create a joint national consumer credit file from which both companies can sell reports from each other's files to credit grantors, with Equifax performing the processing. This joint credit file provides nationwide credit grantors with a single source of credit information, instead of having to deal with multiple sources on a local or regional basis.

  - CSC Credit Services continues to own its credit files and receives all revenues from the sale of the credit information they contain. CSC pays Equifax a processing fee for each report supplied to a credit grantor.

- CSC continues to own and operate 38 credit bureaus. CSC Credit Services also owns 29 collection agencies and provides all processing services for the collection agencies.

- CSC Credit Services is also a leader in supporting the federal government in the collections arena. Since 1987, it has provided collections services to the General Services Administration; it also supports the Department of Education, collecting unpaid student loans for its Western and Midwestern regions.

- CSC Enterprises, formed in December 1990, is a general partnership between CSC, Equifax and Merel Corporation that operates CSC's credit services operations and carries out other business strategies through acquisition and investments.

The Technology Management Group

Through the Technology Management Group, CSC provides a range of outsourcing services, including systems analysis, applications development, network operations and data center management (systems operations) to commercial clients.

Contract examples include the following:

- In September 1995, CSC was awarded a seven-year, $300 million contract with James River to manage and enhance the information technology operations of James River's North American consumer products division and corporate headquarters.

- In August 1995, CSC and Halla Business Group—Korea's largest manufacturer of auto parts—announced plans to form a joint venture to manage and enhance Halla's information technology operations.

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- In July 1995, CSC was awarded a ten-year, $50 million outsourcing contract with The Standard Register Company. CSC will acquire and manage data center, PC desktop and data communications operations at Standard Register's Dayton headquarters.

- In July 1995, CSC was awarded a five-year, $32 million outsourcing contract with Service Corporation International, a Houston-based funeral service organization.

- In July 1995, CSC was awarded a ten-year, $300 million outsourcing contract with Anglian Water, one of the largest water services companies in the U.K. CSC is managing all of Anglian's information technology operations, including mainframes, desktop computing, networks and software applications. In addition, CSC is supplying long-range strategic consulting and systems integration services to help Anglian migrate to a distributed, client/server architecture.

- In July 1995, CSC was awarded a ten-year, $60 million outsourcing contract with John Menzies Retail, a chain of bookstores and magazine outlets in the U.K. CSC will acquire and manage a data center in Edinburgh and provide services ranging from strategic planning to mainframe and desktop management.

- In June 1995, CSC was awarded a ten-year outsourcing contract with Guinness Brewing Great Britain (GBGB). CSC will acquire GBGB's information technology assets, including computers, local-area networks and software, and will maintain and operate GBGB's data center, including midrange operations, applications development and desktop services.

- In June 1995, CSC was awarded a seven-year, $200 million contract to provide outsourcing services to Southern New England Telecommunications Corporation (SNET). CSC will manage SNET's mainframe and midrange computing systems. As part of the pact, CSC will purchase SNET's 100,000-square-foot data center in Meriden (CT) and will consolidate a second SNET data center in New Haven with the Meriden center.

- In June 1995, CSC was awarded a ten-year, $750 million outsourcing contract with Lucas Industries PLC. CSC will acquire the management consultancy Lucas Engineering & Systems and the Lucas Management Systems project management software business, as well as Lucas' information technology infrastructure, including mainframes, midrange servers, desktops, local- and wide-area networks and a range of applications.

- In March 1995, CSC was awarded a three-year, $3 million outsourcing contract with Grossman's home improvement centers.

- In March 1995, CSC was awarded a ten-year outsourcing contract with United Distillers.

- In February 1995, CSC was awarded a five-year, $9 million outsourcing contract with Toyota Belgium.

- In January 1995, CSC was awarded a five-year, $50 million outsourcing contract with the European division of ICI Paints.

- In January 1995, CSC was awarded an eight-year, $1.5 billion outsourcing contract with Hughes Aircraft to take over mainframes, desktop computers, telecommunications and applications

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work. CSC acquired most of Hughes Aircraft's information technology operations, along with 1,200 employees.

- In January 1995, CSC was awarded a 10-year, $50 million outsourcing contract with Autoglass—the U.K.'s leading supplier of replacement windshields. CSC will help Autoglass revamp its customer services system, in addition to managing its data center operations and overseeing applications development and maintenance, data networks and desktops that support 200 branch offices spanning the U.K.

- In January 1995, CSC was awarded a three-year contract with Inland Revenue to provide desktop computing equipment and services to support the agency's offices across the U.K.

- In January 1995, CSC was awarded a five-year, $10 million outsourcing contract with Polaroid Corporation. CSC will acquire and manage all of Polaroid's IBM mainframe systems supporting its North American and European operations. CSC will manage these systems from its Norwich (CT) data center, providing mainframe operations, technical support and network management.

- In November 1994, CSC was awarded a three-year, $90 million contract with Scott Paper Company of Philadelphia whereby CSC will assume responsibility for all Scott Paper's domestic MIS operations, supporting central computing and manufacturing and development of new systems. Scott's data center activities will be transferred to a CSC data center in Carlstadt (NJ).

- In November 1994, CSC was awarded a ten-year contract by San Diego Gas & Electric (SDG&E) to provide mainframe processing and operations support to SDG&E, a leading West Coast utility. In June 1995, CSC was awarded an additional three-year contract to maintain and upgrade all of SDG&E's desktop operations, providing new hardware and software in addition to help-desk, local-area network and Internet access support.

- In October 1994, CSC was awarded a seven-year, $210 million contract by Mutual Life Insurance Company of New York (MONY) whereby CSC will oversee all of MONY's information technology operations and provide business reengineering services along with developing new applications. The two companies will also pool their skills to launch an "Insurance Technology Center" to develop and market new technology products and services to the life insurance industry.

- In 1991, CSC and General Dynamics Corporation formed a 10-year agreement under which CSC will provide systems operations services to General Dynamics' aerospace and defense units.

  - CSC paid General Dynamics approximately $184 million for facilities, equipment, software and services.

  - The contract has generated revenues to CSC of $350 million in fiscal 1994 and $370 million in fiscal 1993.

  - General Dynamics had data centers in Norwich (CT), Fort Worth (TX) and San Diego (CA), and another 28 service sites around the country. These facilities and approximately 2,500 employees of General Dynamics Data Systems joined CSC.

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- General Dynamics has divested four businesses included under the contract. CSC has negotiated agreements for services with all four organizations.

CSC CompuSource, based in Cary (NC), is a unit of the Technology Management Group and provides outsourcing, laser printing and disaster recovery services.

- CSC CompuSource maintains data centers in North Carolina, Massachusetts, Pennsylvania and Ohio.

- In June 1994, CSC CompuSource acquired Comdisco's remote computing contracts, valued at an estimated $10 million over three years. As part of the agreement, CSC CompuSource will market Comdisco's business continuity services. In turn, Comdisco will market CompuSource's item capture service to customers in the New York/New Jersey metropolitan area.

- In June 1993, CSC CompuSource was awarded a five-year, $2.3 million contract to support NationsBank's 10 item processing centers in the event of a disaster.

- In April 1992, CSC CompuSource was awarded a ten-year systems operations contract with WCI Steel, Inc. of Warren (OH). The agreement—estimated to bring CSC revenues of $64 million over the life of the contract—calls for CSC to take over leases valued at about $2.5 million for all hardware used in WCI Steel's facility and 51 WCI employees.

The Outsourcing Marketing Division is responsible for marketing CSC's outsourcing resources in the commercial marketplace.

International Business

CSC's European operations provide consulting, software development and systems integration services to national and transnational clients, primarily in Belgium, France, Germany, the Netherlands and the U.K. Contract examples include the following:

- In May 1994, CSC was awarded a three-year, $37 million contract with Belgacom to develop a new billing system and related support systems for Belgium's state-owned telephone company. Teaming with CSC on the project will be AT&T (which will provide NCR hardware to support the new system) and Coopers & Lybrand (which will oversee the quality assurance).

- In March 1994, CSC was awarded a ten-year, $1.5 billion contract with British Aerospace (BAe) that calls for CSC to be BAe's strategic partner in providing information technology services to support its aerospace and defense businesses.

  - CSC is overseeing the development, maintenance and operation of applications data centers, networks and distributed computing across BAe aerospace and defense units.

  - As part of the agreement, CSC is to pay BAe $112 million for its existing information technology resources, including facilities, equipment and software. In addition, about 1,500 BAe employees are transferring to CSC.

  - A new CSC division called Aerospace Systems Division has been created to manage the contract.

- In January 1994, CSC was awarded a five-year, $100 million contract with Ford of

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Europe Parts & Services whereby CSC will oversee the majority of information technology functions within Ford Parts & Services Operations, which spans all of Europe.

- In November 1993, CSC was awarded a five-year, $90 million outsourcing contract with RAET—one of the top three information technology services companies in the Netherlands—to acquire and manage RAET's computer center, and will provide information technology services to both RAET and its clients.

- In February 1993, CSC was awarded an 11-year outsourcing contract estimated at between $150 million and $200 million with BhS—a leading retailer based in the U.K.—to manage BhS' information technology requirements and take over a data center and network connecting 136 retail stores.

Data Centers

The Technology Management Group operates three data centers in San Diego, Ft. Worth and Norwich that operate numerous computer systems, including the following:

- IBM 3090, 3084, 3081, 4361, 4381, 9221
- Amdahl 5990 5995
- Cray XMP-28
- CYBER 180-855
- Convex C210
- DEC, IBM, HP, NCR, Harris, Tandem, Stratus and other midrange systems
- Sun, HP, DEC and other workstations

CSC Credit Services' data center in Houston uses IBM 4381, DEC VAX 8650 and DEC VAX-II/785 systems.

The Systems Engineering Division has an Amdahl 5870 installed in Lanham (MD) for claims processing and related insurance functions.

CSC TACS has an IBM 4081 installed in Los Angeles.

CSC Logic, Inc. has an IBM 3090-200E, MVS/ESA installed in Dallas.

In support of its research and development efforts in software engineering, supercomputing and other fields, CSC's Systems Group at Falls Church (VA) operates several laboratories that evaluate equipment lent by manufacturers. Company-owned equipment at this location includes a Relational 1000 and a DEC MicroVAX II.

Alliances

CSC has alliances with a range of vendors for different projects, including Wang, Siemens-Nixdorf, Oracle, Hewlett-Packard and Sun Microsystems.

In September 1995, CSC was named the first independent provider of SAS Institute software and consulting services.

Competitors

Major competitors by primary service/product area include the following:

- Federal government professional services: TRW, Hughes Aircraft, IBM, PRC, Electronic Data Systems (EDS), General Electric, AT&T, Unisys, Boeing Information Services and Loral

- Commercial consulting, systems integration and outsourcing: Andersen Consulting, Booz Allen & Hamilton, Coopers & Lybrand, Deloitte & Touche, EDS, Ernst & Young, IBM, KPMG, McKinsey & Co., Perot Systems and Unisys.

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- Medicaid claims processing: Blue Cross/Blue Shield and EDS
- Credit reporting service: TRW Information Services and TransUnion
- Health care systems: Jergovan and Blair, Inc.

Assessment

CSC's strengths include:

- Offering the full spectrum of services—from business reengineering to facilities management
- A strong technology thrust, focusing on current technical issues such as object-oriented, client/server technology and rapid application development
- A leadership role in the outsourcing market and managing large, highly complex projects
- Continued strength in the federal sector
- Independence from any hardware manufacturer

Challenges over the coming year include:

- Continuing to build strong European groups amidst uncertainties about near-term economic recovery
- Handling the increased competitive environment, especially in systems integration and outsourcing

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Vendor Profile

A Publication from INPUT's Vendor Analysis Program – U.S.

December 1994

Computer Sciences Corporation

Chairman & CEO: William R. Hoover
President & COO: Van B. Honeycutt
2100 East Grand Avenue
El Segundo, CA 90245
Phone: (310) 615-0311
Fax: (310) 322-9805

Status:	Public
Employees:	30,000 (12/94)
Revenue:	$ 2,582,670,000
Fiscal Year End:	4/1/94

Key Points

- Computer Sciences Corporation (CSC), founded in 1959, is the largest independent provider of professional services, including management consulting, business re-engineering and information systems consulting, systems integration and outsourcing services.
- In fiscal 1994, for the first time in the company's history, CSC's commercial operations represented more than 50% of total revenue. CSC's commercial consulting and systems integration business increased its revenue by more than 25% for the third consecutive year, contributing substantially to an overall growth rate of 11% commercially.
- Fiscal 1994 was a record year in federal contract awards for CSC—winning 66% of the total contract dollars bid, for a total award amount of $2 billion. CSC began fiscal 1995 with its largest ever federal contract—an eight-year, $1.045 billion contract to provide information systems support to the NASA Marshall Space Flight Center in Huntsville (AL).
- CSC's federal activities were expanded in early 1994 with the acquisition of the Professional Services Group of Atlantic Research Corporation—a high-level information services firm with annual revenue of $170 million.

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- In March 1994, CSC received the largest and most important contract award the company has ever received in Europe—a $1.5 billion, ten-year outsourcing contract with British Aerospace Corporation.

- William R. Hoover, who has been chief executive officer of CSC since 1972, will retire March 31, 1995. Mr. Hoover will continue as chairman of the board. Van B. Honeycutt, who has been president and chief operating officer since June 1993, will become CEO and president.

Company Description

Serving government and commercial clients, CSC provides strategy and management consulting, business re-engineering, information technology consulting, requirements analysis, software development, systems engineering and integration, turnkey computer/communications systems and systems operations (outsourcing) services. The company also provides industry-specific proprietary products and services for credit reporting, claims processing, health maintenance organizations, discrete manufacturing, retail, transportation, distribution, utilities and telecommunications.

Organization and Structure

CSC's organization structure is shown on the following page. The company currently provides its services through five operating groups as follows:

- The Systems Group, headquartered in Falls Church (VA), is the company's primary resource for computer and communications technology. The group has five divisions that primarily serve the U.S. government.

- The Consulting Group, headquartered in Cambridge (MA), provides management consulting, business re-engineering, systems integration and technology consulting services to the commercial marketplace. This group has five divisions that serve commercial clients.

- CSC Europe, headquartered in London, provides consulting, systems integration and outsourcing services to public and private businesses primarily in Europe. This group has seven divisions spanning Belgium, France, Germany and the Netherlands.

- The Industry Services Group, headquartered in Houston (TX), serves vertical markets with industry-specific services, principally directed at the insurance, health care and consumer finance industries.

- The Technology Management Group, headquartered in Falls Church (VA), is responsible for overseeing all commercial outsourcing-related activities in North America.

A three-year summary of source of revenue by operating group follows:

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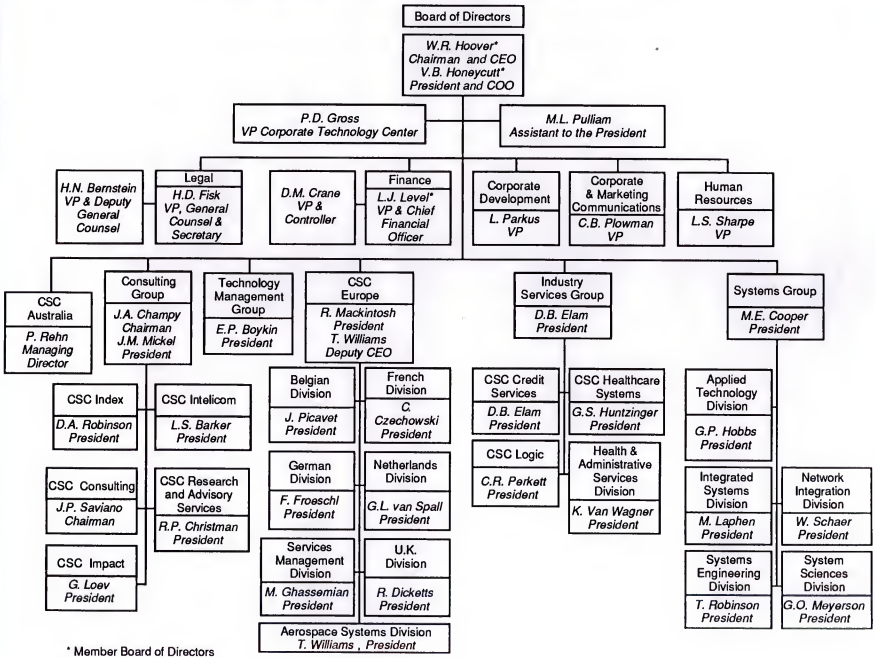
Computer Sciences Corporation Organization Chart



* Member Board of Directors

Computer Sciences Corporation
Three-Year Source of Revenue Summary
($ Millions)

	Fiscal Year					
	4/1/94		4/2/93		4/3/92	
Product/Service	Revenue $	Percent of Total	Revenue $	Percent of Total	Revenue $	Percent of Total
Systems Group	$1,246	48%	$1,273	51%	$1,203	57%
Consulting Group (a)	591	22%	490	20%	403	19%
Industry Services Group	292	12%	717	19%	507	24%
Technology Management Group	454	18%	(b)	(b)	(b)	(b)
Total	$2,583	100%	$2,480	100%	$2,113	100%

(a) Includes the operations of CSC Europe.

(b) Included in the Industry Services Group prior to fiscal 1994

Company Strategy

CSC's strategies are to maintain its dominant position in the U.S. federal marketplace (which contributed 48% of fiscal 1994 revenue), while expanding its market share in non-federal markets through internal growth and acquisitions. The company is dedicated to being the best in technology, business re-engineering and project management.

CSC management has set the objective of becoming one of the top two or three companies in the commercial markets for consulting, systems integration, outsourcing and related professional services in the U.S. and Europe.

- Three factors in the global marketplace are driving strong commercial opportunities for CSC:
  - A strong demand for business solutions such as re-engineering, outsourcing and the development of systems that bring new efficiencies to maintain market share and control costs;
  - The demand for consultants, systems integrators and outsourcers to help rethink and reshape strategies to keep up with new competition;
  - The need to respond innovatively to more sophisticated and demanding consumers.
- Key technology issues being addressed by CSC include client/server, object-oriented programming and rapid application development. About 80% of all CSC' new commercial business is client/server. The company has established a Center of Excellence to support internal research and is expanding its new CSC Catalyst℠ methodology to promote object-oriented programming.

CSC's strategy for the federal market includes:

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- Capitalizing on growth in information systems as new productivity and efficiency measures are introduced to support defense downsizing, especially in civil agencies;
- Bringing its well-established skills in business re-engineering to the federal arena as government attempts to boost productivity, cut costs and "reinvent" processes;
- Being well represented in every sector of the federal market;
- Pursuing business in networking, digital imaging systems, computer-aided training, geographic information systems, the Department of Defense, NASA and other civil agencies.

Financials

CSC's fiscal 1994 revenue reached $2.58 billion, a 4% increase over fiscal 1993 revenue of $2.48 billion. Net income for fiscal 1994 was $90.9 million before the cumulative effect of a change in the method of accounting for income taxes. After the change, net income was $95.8 million.

In the five-year summary that follows, financials include results of businesses acquired from their respective dates of acquisition as well as the results of businesses sold up to the date of their divestiture:

Computer Sciences Corporation
Five-Year Financial Summary
($ Millions, except per share data)

	Fiscal Year				
Item	4/1/94	4/2/93	4/3/92	3/29/91	3/30/90
Revenue	$2,582.7	$2,479.8	$2,113.4	$1,737.8	$1,500.4
• Percent change from previous year	4%	17%	22%	16%	15%
Income before taxes	$149.1	$128.2	$109.2	$102.5	$103.2
• Percent change from previous year	16%	17%	7%	(1%)	22%
Net income	$95.8	$78.1	$68.2	$65.0	$65.5
• Percent change from previous year	(a) 23%	15%	5%	(1%)	25%
Earnings per share	$1.86	$1.55	$1.37	$1.34	$1.36
• Percent change from previous year	(a) 205	13%	2%	(1%)	N/A

(a) Includes a $4.9 million ($0.09 per share) cumulative effect from a change in the method of accounting for income taxes.

Revenue growth for fiscal 1994 was due to expansion of internal activities and acquisitions.

- Revenue from the U.S. government declined 2.5% to $1.22 billion as a result of the phase-out of two large contracts, mostly offset by the acquisition of the Professional Services Group of Atlantic Research Corporation. During fiscal 1994, CSC was awarded contracts with a value of $2.0 billion, compared with $1.25 billion the prior year.

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- Commercial revenue has been growing faster than federal sector revenue. Domestic commercial revenues increased 5% to $1.04 billion in fiscal 1994 led by consulting and systems integration activities, offset by the impact of the New Jersey JUA/MTF contract expiration.

- International revenues increased 36% to $321 million. Slightly more than half of the growth resulted from the acquisition of Computer Sciences of Australia. The remained came from consulting and outsourcing efforts.

Interim Results

Revenue for the six months ending September 30, 1994 reached $1.53 billion, a 24% increase over $1.23 billion for the same period in 1993. Net income was $44.7 million, an 8% increase over $41.3 million for the same period a year ago.

- Federal revenues, representing 45% of total revenue, rose 18% to $700.1 million, benefiting from the Professional Services Group acquisition, $2 billion in federal awards received in 1994 and a total of $1.4 billion in federal awards for the first six months of fiscal 1995. In addition, CSC is pursuing approximately $2.5 billion in federal contract opportunities expected to come to award this year.

- Domestic commercial revenue rose 3% to $527.2 million. Strong growth from consulting activities was offset by a reduction in some of the large-scale transaction processing segments of CSC's business. Although commercial outsourcing revenue was flat compared with last year, several recent outsourcing contract awards will enable this sector to resume growth.

- International revenue jumped 135% to $299.3 million. Recent outsourcing awards in Europe and the contribution of Australian operations were a major part of revenue growth.

Revenue Analysis by Product/Service

A three-year summary of source of revenue, as reported by CSC, is shown on the following page.

INPUT estimates that CSC's $2.25 billion in fiscal 1994 U.S. information services revenue was derived approximately as follows:

Professional services	32%
Systems integration	30%
Systems operations	30%
Processing/network services	6%
Turnkey systems	2%
	100%

Market Financials

Approximately 48% of CSC's fiscal 1994 revenue was derived from the federal government and 52% from commercial sources. A three-year summary of source of revenue by industry also appears on the following page.

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Computer Sciences Corporation
Three-Year Source of Revenue Summary
($ Millions)

	Fiscal Year					
	4/1/94		4/2/93		4/3/92	
Product/Service	Revenue $	Percent of Total	Revenue $	Percent of Total	Revenue $	Percent of Total
Professional services	$1,136	44%	$901	37%	$719	34%
Systems integration	697	27%	617	25%	570	27%
Outsourcing	750	29%	962	38%	824	39%
Total	$2,583	100%	$2,480	100%	$2,113	100%

Computer Sciences Corporation
Three-Year Industry Market Source of Revenue Summary
($ Millions)

	Fiscal Year					
	4/1/94		4/2/93		4/3/92	
Industry/Market	Revenue $	Percent of Total	Revenue $	Percent of Total	Revenue $	Percent of Total
Federal						
- Department of Defense	$715.6	28%	$675.7	27%	$620.2	29%
- NASA	222.0	9%	260.7	11%	268.2	13%
- Civil agencies	285.6	11%	318.0	13%	323.8	15%
	$1,223.2	48%	$1,254.4	51%	$1,212.2	57%
Commercial						
- U.S. (a)	$1,038.5	40%	$990.3	40%	$689.6	33%
- International	321.0	12%	235.1	9%	211.6	10%
	$1,359.5	52%	$1,135.4	49%	$901.2	43%
Total	$2,582.7	100%	$2,479.8	100%	$2,113.4	100%

(a) Includes state and local government revenue of about $26 million, $49 million and $37 million in fiscal 1994, 1993 and 1991, respectively.

Commercial revenue is derived from Fortune 1000 companies in manufacturing, insurance, banking and finance, telecommunications and utilities; and the retail, wholesale/distribution, medical and services industries.

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A further breakdown of CSC's $1.04 billion in U.S. commercial revenue for fiscal 1994 is estimated as follows:

Industry/Market	Percent of Revenue
Manufacturing and distribution	43%
Banking and finance	16%
Medical	12%
Insurance	10%
Telecommunications	10%
Other	9%
Total	100%

International revenue is derived from foreign governments, financial institutions, transportation companies and manufacturers.

Geographic Markets

Approximately 88% of CSC's fiscal 1994 revenue was derived from the U.S. and 12% from international markets. A three-year summary of geographic sources of revenue follows:

Computer Sciences Corporation
Three-Year Geographic Source of Revenue Summary
($ Millions)

	Fiscal Year					
	4/1/94		4/2/93		4/3/92	
Geographic/Market	Revenue $	Percent of Total	Revenue $	Percent of Total	Revenue $	Percent of Total
U.S.	$2,271.8	88%	$2,244.7	91%	$1,904.5	90%
International	321.0	12%	235.1	9%	208.9	10%
Total	$2,582.7	100%	$2,479.8	100%	$2,113.4	100%

CSC maintains offices in more than 300 locations throughout the U.S. and has approximately 450 offices worldwide. Operations span the U.K., Belgium, France, Germany, the Netherlands, Canada and Australia.

Acquisitions

In December 1994, CSC agreed to acquire a majority interest in Ploenzke AG, Germany's largest independent computer services firm.

- Ploenzke AG specializes in consulting, systems integration and custom software development. The company serves commercial and public sector clients.
- A key benefit of the acquisition is Ploenzke's strength in software products developed by SAP.
- With annual revenue of $170 million and a staff of 1,400 information technology experts, Ploenzke AG has 19 offices spanning Germany. It also has subsidiaries in Switzerland, Austria, Spain and Holland, which CSC will acquire as part of the agreement.

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In August 1994, CSC acquired Ouroumoff Consultants, one of the top 10 management consulting firms in France. Terms of the acquisition were not disclosed.

- Ouroumoff, with 80 employees and annual revenue of approximately $18 million, specializes in business process re-engineering, redesign, information technology change management, logistics, quality management and marketing.
- Services are provided throughout Europe in various industry sectors, including manufacturing, distribution, retail, utilities and government.
- The acquisition expands CSC's professional services offerings in Europe. CSC's revenues in France will increase by more than 50% with the acquisition.
- Ouroumoff's operations will be merged into CSC's French Division.

In June 1994, CSC acquired the remote computing services business of Comdisco's Comdisco Computing Services Corporation.

- CSC's CSC CompuSource outsourcing and disaster recovery services unit will also buy Comdisco's remote computing contracts valued at an estimated $10 million over three years and will lease both Comdisco's 77,000-square-foot processing facility in Carlstadt (NJ) and related hardware.
- Under the terms of the agreement, CSC CompuSource will market Comdisco's business continuity services and Comdisco Disaster Recovery Services will market CSC CompuSource's item capture service in New York/New Jersey.
- The acquisition strengthens CSC's outsourcing presence in the Northeast and positions the company to pursue additional opportunities in the region CSC's co-marketing arrangement with Comdisco demonstrates CSC's goal to become the leader in item processing recovery.

In June 1994, CSC acquired The DiBianca-Berkman Group Inc. of Flemington (NJ), a leader in the practice of corporate cultural change and executive alignment as it relates to business re-engineering. The private firm, with annual revenue of approximately $12 million, will become part of CSC Index.

In January 1994, CSC acquired the Professional Services Group (PSG)—an information technology company based in Rockville (MD)—from Atlantic Research Corporation, a unit of Sequa Corporation.

- The transaction was valued at approximately $66 million, but net of assumed debt and cash adjustments at closing has an acquisition price of about $64 million.
- PSG, with 2,000 employees and annual revenue of $170 million from more than 240 contracts, has core capabilities in command, control, communications and intelligence and information systems serving the Department of Defense, civil agencies of the U.S. government and international clients.
- The acquisition reaffirms CSC's strong commitment to serve the federal government. Approximately 80% of PSG's revenue comes from federal contracts that will add about $135 million to CSC's current federal business base.
- The acquisition adds 16 new CSC offices in the Washington, D.C. area and six

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international offices (three in Canada, two in the U.K. and one in Greece).

- PSG currently serves a range of defense and civil agency clients and also supplies technical services to the health care and pharmaceutical industries. In addition, the business unit has skills in the use of automated acquisition support and logistics services, which complement CSC's expertise in developing and fielding the Joint CALS system for the DoD.

- The operations of PSG are being merged into the Systems Engineering Division of CSC's Systems Group.

Effective November 1, 1993, CSC acquired Computer Sciences Australia (CSA) from Australian Mutual Provident Society (AMP) and signed a $300 million, 10-year outsourcing agreement with AMP.

- CSA is a systems integration, outsourcing and software development company with annual revenue of about $80 million and 1,100 employees.

- Under the outsourcing agreement, CSA oversees AMP's information technology operations and acquired the assets of its major data center located in Bondi, a suburb of Sydney. CSA also operates AMP's data network which links offices spanning Hong Kong, New Zealand, Australia and the U.K. In addition, 100 AMP information technology personnel joined CSA.

- The acquisition and the outsourcing contract give CSC increased presence in the Pacific Rim area, a geographic market critical to CSC's growth.

In August 1993, CSC Intelicom acquired BankIllinois Company (BIC) of Champaign (IL).

- BIC provides billing and administrative services for midsized cellular carriers. Its TRIS+™ software product supports all phases of a wireless carrier's operations, including billing, customer service and equipment inventory.

- BIC, with 125 employees, serves about 35 clients in the U.S. It now operates as a unit of CSC Intelicom.

Employees

As of April 1994, CSC had approximately 28,600 employees.

As of December 1994, CSC had approximately 30,000 employees, segmented as follows:

Systems Group	56%
Industry Services Group	10%
Consulting Group	10%
Technology Management Group	8%
CSC Europe	11%
CSC Australia	4%
Other	1%
	100%

Key Products and Services

CSC's services are summarized according to federal and commercial lines of business.

U.S. Federal Government Business

The Systems Group is the company's primary provider of information systems and services to the federal government. Services provided include systems engineering and integration, the development of custom-designed computer-based systems and communications

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systems, operational support of clients' technical activities, clients' computer facilities management and turnkey system development.

The Systems Group consists of five units:

- The Integrated Systems Division, based in Moorestown (NJ), designs, implements and integrates systems for office automation, digital imaging and administrative and engineering support and for military uses such as weapons control, logistics, wargaming and command, control and communications (C^3I).
- The System Sciences Division, headquartered in Calverton (MD), provides systems engineering, analysis, software development and end-to-end integrated data systems and services primarily to aerospace clients such as NASA and the FAA.
- The Network Integration Division (formerly the Network Systems Division), headquartered in Falls Church (VA), provides network and systems integration to both government and industry. Specializing in networks, distributed systems and network computing, the division provides a range of services, from architecture through operations and maintenance.
- The Systems Engineering Division (formerly the Special Projects Division), headquartered in Falls Church (VA), performs high-level technical management projects, known as systems engineering and technical assistance (SETA), for the government. The division also performs research and development in systems and software technologies and special activities in signal processing, communications systems and information processing.
- The Applied Technology Division, headquartered in Falls Church (VA), provides systems operations (facilities management) services, primarily for NASA, provides operations and maintenance services to aircraft and weapons test centers; and provides software development support to federal agencies. This division, CSC's largest business unit, has about 9,000 employees.

Announced in August 1994, CSC and the National Computer Security Association (NCSA) are launching National INFOSEC Exchange—a program to promote the open exchange of system security information among private industry and the federal government.

Significant contract awards for the group include the following:

- In August 1994, CSC was awarded a four-year, $157 million contract by the General Services Administration (GSA) to provide business and scientific support to dozens of federal agencies in 13 Midwestern and Southeastern states that use GSA as a central resource for computer services.
- In July 1994, CSC was awarded a five-year, $38 million contract with the U.S. Navy to provide networking and computer support for financial and management systems for the Navy's research laboratory.
- In May 1994, CSC was awarded a five-year, $10 million contract with the Naval Command, Control and Ocean Surveillance Center to provide software to help the Navy exchange combat information between ships, aircraft and shore stations.

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- In May 1994, CSC was awarded a five-year, $94 million contract with the DoD to provide modeling and simulation tools to help the Joint Staff and Unified and Specified Commands test and assess different wartime contingency plans.

- In May 1994, CSC was awarded an eight-year, $1.045 billion contract with NASA to provide comprehensive information systems support at the NASA Marshall Space Flight Center in Huntsville (AL).

- In March 1994, CSC was awarded a five-year, $97.5 million contract with the U.S. Navy to provide systems engineering and software support to the Navy's AEGIS combat weapons program.

- In January 1994, CSC was awarded a five-year, $49 million subcontract with McDonnell Douglas to provide engineering and integration support to the NASA Goddard Space Flight Center's Flight Project Directorate.

- In November 1993, an industry team headed by CSC was awarded one of six Defense Technical Integration Services (DTIS) contracts by the Defense Information Systems Agency (DISA).

  - The contracts will provide the tools needed to move the DoD and other government agencies into a multitiered, open systems environment. The contracts were awarded for one year, with six one-year options and have a combined maximum value of $935 million.

  - CSC, leading a team of 17 subcontractors, will perform about 70% of the work on its contract with the subcontractors handling the rest.

- In July 1993, CSC was awarded a seven and one-half-year, $200 million contract to operate and maintain NASA's Langley Central Scientific Computing Complex in Hampton (VA). CSC has supported NASA Langley for more than 20 years and has been a NASA contractor for more than 30 years.

- In July 1993, CSC was awarded a six-year, $566 million contract to provide range technical services to the Air Force Eastern Range at Patrick Air Force Base in Cocoa Beach (FL) through a joint venture with Raytheon.

- In April 1993, CSC was awarded a 10-year, $400 million contract by the Bureau of Land Management to provide a new Automated Land and Mineral Record System to more efficiently manage the nation's public lands.

- In April 1992, CSC was awarded an eight-year, $575 million contract (including options) by the U.S. Air Force to provide engineering and instrumentation in support of flight testing and training programs and maintenance and operation of data collection and processing systems at the Edwards Flight Test Center and Utah Test and Training Range, plus associated remote locations.

CSC is a member of the AT&T team selected in December 1988 to replace the federal government's current telecommunications system. Known as FTS 2000, the program provides government agencies with an integrated system for voice, data and video services. CSC is providing a billing system and other software services for FTS 2000. Both CSC's Systems Group and CSC Consulting unit are engaged in the FTS 2000 program.

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U.S. Commercial Business

CSC's services to domestic commercial clients are provided primarily through the Consulting Group, the Industry Services Group and the newly formed Technology Management Group.

Consulting Group

The Consulting Group provides management consulting, business re-engineering, systems integration, requirements analysis, system design, software development, system engineering, communications system engineering and facilities management for non-federal organizations worldwide. These activities are performed by the following units:

- CSC Index, Inc., based in Cambridge (MA) with nearly 500 employees, is an international management consulting firm that assists corporations in achieving dramatic improvements in their operations and financial performance. CSC Index pioneered the business re-engineering approach.

- CSC Consulting is a wholly owned subsidiary based in Waltham (MA) with 1,500 employees. CSC's Cleveland Consulting Associates unit has been merged into CSC Consulting.

- CSC Impact, formed in January 1994 and based in Cambridge (MA) with 10 employees, works closely with the other units of CSC Consulting Group to provide consulting services on the management and exploitation of information technology for commercial and government organizations.

- CSC Intelicom Inc., based in Bethesda (MD) with 225 employees, specializes in products and services to telecommunications firms.

- CSC Research and Advisory Services, based in Cambridge (MA), is a management education service whose sponsors include more than 600 of the world's largest organizations. Executive programs are offered on strategy, re-engineering, technology management, organizational change and other topics.

CSC Index focuses on three main disciplines—business strategy and operations; information technology and change management.

- Business strategy and operations includes:
  - Formulating business strategies
  - Redesigning management and operational processes to achieve goals
  - Developing new approaches for working with suppliers and customers to improve speed and service
- Information technology consulting includes:
  - Identifying opportunities where information technology can enable new strategic initiatives to be taken
  - Developing approaches for the competitive application of information technology
- Change management consulting includes:
  - Assessing and developing human resources to meet business needs
  - Building a clear understanding of and commitment to required business changes

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- Creating and implementing new structures for the systems organization

- In its business re-engineering work, CSC Index draws on all three of the disciplines described above.

- Index works primarily for the Fortune 500 manufacturing and service companies in the U.S. and the Financial Times 500 in Europe. The firm has assisted 19 of the 25 largest U.S. corporations.

CSC Consulting combines strong industry expertise with deep technology capabilities to help Fortune 1000 companies solve critical business problems.

- The unit provides comprehensive services in three broad areas—management consulting, systems integration and technology consulting.

  - Management consulting services include:

    · Industry consulting

    · Business process redesign

    · Change management

    · IT planning and strategy

    · TQM/business process improvement

    · Technical architecture development

    · Business architecture development

    · IT re-engineering

  - Systems integration services include:

    · Project and program management and implementation

    · Conversion and migration planning

    · Package evaluation, selection and implementation

    · Legacy system migration

    · Software re-engineering

    · Transitional outsourcing

  - Technology consulting services include:

    · Database consulting

    · Performance engineering

    · Network architecture and design

    · Systems architecture and design

    · Systems management

    · Application maintenance outsourcing

    · Staff support

- The unit services a range of industries, including consumer goods, distribution and logistics, financial services, manufacturing, pharmaceuticals, retail, telecommunications and utilities. CSC Consulting also serves state and local governments.

- CSC has had a continuous contractual relationship with AT&T for over 20 years.

- For U.S. Sprint, CSC is developing a system that automates service requests for consumers and businesses.

- In February 1994, CSC Consulting was awarded a ten-year subcontract with Fleet Financial Group to help redesign and streamline existing tax processes and develop

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a new income tax processing system for the state of New York.

CSC Impact provides information technology services primarily to business and corporate information technology executives.

- Services are delivered in three primary areas:
  - Helping organizations reposition their information technology activities in support of business re-engineering initiatives
  - Delivering assessment and planning support so that senior information systems and business executives can more closely align technology investments, structure and management practices with strategic business objectives
  - Identifying innovations in information technology that businesses can use to exploit new markets or improve internal operations.

CSC Intelicom provides applications software products and associated support services to the regional Bell operating companies, major independents and interexchange carriers in North America and Europe.

- CSC also markets ISIS™, a billing and administrative support system for the wireless communications market, including cellular, GSM cellular, PCNs and paging applications. ISIS runs on a range of systems, from PCs to mainframes.
- TRIS+™, acquired in August 1992 with BankIllinois Company, is a wireless billing system for midsized cellular carriers that runs on a distributed basis.
- NetCharge™ is a billing system for wireline providers.
- In November 1994, CSC announced a five-year, $50 million contract with Grupo Iusacell, Mexico's leading cellular phone company, to provide wireless billing and administration services.
- In March 1994, CSC announced a two-year plan to build *Open*BASE™—the first open systems platform to support billing and administration tasks in the telecommunications arena. CSC has alliances with HP, AT&T Global Information Solutions, DEC, Oracle and Ingres (Computer Associates) to support the effort.
- In March 1994, AT&T's Network Systems Group chose CSC Intelicom to provide billing and business management systems and related services to support wireless and wireline telecommunications providers worldwide. The agreement is expected to create revenue to CSC of more than $60 million over the next three years.
- In August 1994, CSC Intelicom was awarded a contract with Qatar Public Telecommunications Corp. to provide wireless billing and administration systems in the Middle East. The contract is initially valued at $2 million for implementation of CSC's ISIS wireless billing system.
- Since mid-1992 CSC has had a joint development and distribution agreement with Coral Systems Inc. (Boulder, CO) giving CSC exclusive marketing rights to FraudBuster™, software that helps wireless carriers track fraud and Home Location Register, which provides "seamless roaming"

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to aid in tracking users as they move from one calling area to another.

- In January 1993, CSC signed a joint agreement with LM Ericsson, the world's largest supplier of cellular switching systems, authorizing Ericsson to sell FraudBuster with its open platform that links various systems to a switch.

- In March 1993, CSC signed a marketing agreement with Davox Corp. (Billerica, MA) which specializes in integrated inbound/outbound calling system.

- In November 1993, CSC Intelicom was awarded a four-year, $25 million contract from Nextel Communications, Inc. to develop a business management system that streamlines the way cellular customers are billed.

- In November 1992, CSC and Sun formed a service alliance agreement to pursue systems integration business in the wireless telecommunications market.

Enterprise CALS (ECALS), announced in December 1992, is the first structured global information management system that allows users throughout a business organization to share information, regardless of platforms, operating systems or databases involved. The product is designed to support companies seeking to simplify and speed the process of bringing a product and/or service to market and will be an important system component for re-engineering organizations.

In October 1993, CSC's Consulting Group launched CSC Genesis, a research program to identify emerging business and management trends in business strategy, process management, organizational change and corporate culture.

Industry Services Group

The Industry Services Group serves vertical markets with outsourcing and industry-specific services, principally directed at the insurance, health care and consumer finance industries, through four units.

The Health and Administrative Services Division, with 1,000 employees, provides large-scale medical claims processing, systems operations and related services for state and federal agencies. On April 1, 1995, the Health and Administrative Services Division will be reassigned to two other CSC units. Work with the New York State Department of Social Services—and all related health care work—will become part of CSC Healthcare Systems. The National Flood Insurance Program and the federal Black Lung program, both located in Lanham (MD), will be reassigned to CSC's Systems Engineering Division, which is part of Systems Group. Recent contracts include the following:

- In December 1994, CSC signed a five-year contract with United Healthcare Corp. to process health care claims for the United Mine Workers of America Combined Benefit Fund.

- In June 1993, CSC was awarded a four-year, $50 million contract to continue processing health claims and disability benefits for the U.S. Department of Labor's Federal Black Lung Program.

- The division has provided statistical support services for the Federal Emergency Management Agency's (FEMA) National Flood Insurance Program since 1983. In

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May 1993, CSC was awarded a five-year, $48.6 million renewal contract by FEMA.

- In April 1993, CSC was awarded a three-year, $11.3 million contract by the Joint Commission on Accreditation of Healthcare Organizations to support the development of the Indicator Monitoring System designed to continuously monitor and compare the performance of most of the nation's health care organizations.

- In June 1991, CSC was awarded a $149 million contract with the New York State Department of Social Services to act as fiscal agent for the state's Medicaid program. The contract continues work the company has performed since 1986.

CSC Logic, Inc., with 252 employees, provides systems operations, processing services and applications software products for the administration of life and disability insurance for credit loans and mortgages, collateral protection insurance and insurance for automobile manufacturers' warranties.

- The majority of CSC Logic's business is from full administration (systems operations) services, followed by processing services and software licensing. CSC Logic's CALS-II software is available for IBM and compatible mainframes and microcomputers and through CSC Logic's data center in Dallas.

- CSC Logic is participating in a $39.7 million, three-year contract from the Resolution Trust Corporation to provide processing and asset management services for assets of failed thrifts in Texas, Louisiana and Mississippi.

- CSC Logic currently has approximately 100 clients, including insurance companies, financial institutions and financial subsidiaries of automobile manufacturers.

CSC Healthcare Systems, Inc., with 360 employees and estimated annual revenue of $40 million, provides outsourcing, systems integration and software products for the managed care health care environment.

- Software products provided through CSC Healthcare Systems are primarily focused on managed care and include the following:

  - Managed Health Care (MHC) is a UNIX-based managed care claims and administration system. The target market for MHC is HMOs, IPAs, Local Delivery Systems, PHOs and Prepaid Group Practices. There are more than 120 MHC installations in 40 states.

  - Managed Health Care Information Systems (MHS) is an IBM mainframe and AS/400-based managed care claims and administration system for managed care organizations. There are more than 60 MHS installations.

  - Ambulatory Care Group Case Mix System (ACG) is a case-mix methodology developed at Johns Hopkins University for which CSC Healthcare Systems is the exclusive distributor. The ACG system can be used to compare providers, develop group rates for health care services and forecast the demand for care.

  - Focal Point™ Decision Support System is a data management and analysis tool that provides access to medical utilization and cost information.

- Recent health care-related outsourcing contracts include the following:

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- In July 1994, CSC was awarded a seven-year, $55 million outsourcing contract with American Medical Response, a leading provider of emergency pre-hospital medical care and general ambulance services, to develop and maintain a system and national network that will manage the company's claims processing, billing and receivables operation.

- In June 1994, CSC was awarded a contract with the Joint Commission on Accreditation of Healthcare Organizations to receive, store and process data for the Joint Commission's Indicator Measurement System, a national reference database designed to measure hospital performance, stimulate improvement in patient care and eventually generate "report cards" on quality for consumers and purchasers of health care.

CSC Credit Services, with 1,400 employees, is a major supplier of consumer credit reports and account management services to thousands of credit grantors nationwide.

- As the result of an agreement formed with Equifax during 1988, credit report processing is furnished through Equifax's credit operations.

  - CSC has converted its more than 110 million consumer credit files to Equifax's computer system to create a joint national consumer credit file from which both companies can sell reports from each other's files to credit grantors, with Equifax performing the processing. This joint credit file provides nationwide credit grantors with a single source of credit information, instead of having to deal with multiple sources on a local or regional basis.

  - CSC Credit Services continues to own its credit files and receives all revenues from the sale of the credit information they contain. CSC pays Equifax a processing fee for each report supplied to a credit grantor.

- CSC continues to own and operate 38 credit bureaus. CSC Credit Services also owns 29 collection agencies and provides all processing services for the collection agencies.

- CSC Credit Services is also a leader in supporting the federal government in the collections arena. Since 1987, it has provided collections services to the General Services Administration; it also supports the Departmet of Education, collecting unpaid student loans for its Western and Midwestern regions.

- CSC Enterprises, formed in December 1990, is a general partnership between CSC, Equifax and Merel Corporation that operates CSC's credit services operations and carries out other business strategies through acquisition and investments.

The Technology Management Group

Through the Technology Management Group, CSC provides a range of outsourcing services, including systems analysis, applications development, network operations and data center management (systems operations) to commercial clients.

Contract examples include the following:

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- In November 1994, CSC was awarded a three-year, $90 million contract with Scott Paper Company of Philadelphia whereby CSC will assume responsibility for all Scott Paper's domestic MIS operations, supporting central computing and manufacturing and development new systems. Scott's data center activities will be transferred to a CSC data center in Carlstadt (NJ).

- In November 1994, CSC was awarded a ten-year contract by San Diego Gas & Electric (SDG&E) to provide mainframe processing and operations support to SDG&E, a leading West Coast utility.

- In October 1994, CSC was awarded a seven-year, $210 million contract by Mutual Life Insurance Company of New York (MONY) whereby CSC will oversee all of MONY's information technology operations and provide business re-engineering services along with developing new applications. The two companies will also pool their skills to launch an "Insurance Technology Center" to develop and market new technology products and services to the life insurance industry.

- In July 1993, CSC was awarded a 10-year, $26.7 million outsourcing contract with United Illuminating Company (UI) to assume day-to-day management of UI's data center operations in Norwich (CT).

- In March 1993, CSC was awarded a three-year, $27 million technology management contract with Sun Microsystems. The agreement calls for Sun to temporarily transfer all of its mainframe data center activities to CSC while converting to a client/server environment.

- In September 1991, CSC and General Dynamics Corporation formed a 10-year agreement under which CSC will provide systems operations services to General Dynamics' aerospace and defense units.

  - CSC paid General Dynamics approximately $184 million for facilities, equipment, software and services.

  - CSC is guaranteed to receive minimum revenues aggregating on less than $800 million for the first three years of the contract. The contract has generated revenues to CSC of $350 million in fiscal 1994 and $370 million in fiscal 1993.

  - General Dynamics had data centers in Norwich (CT), Fort Worth (TX) and San Diego (CA) and another 28 service sites around the country. These facilities and approximately 2,500 employees of General Dynamics Data Systems joined CSC.

  - General Dynamics has divested four businesses included under the contract. CSC has negotiated agreements for services with all four organizations.

CSC CompuSource, based in Cary (NC), is a unit of the Technology Management Group and provides outsourcing, laser printing and disaster recovery services.

- CSC CompuSource maintains data centers in North Carolina, Massachusetts, Pennsylvania and Ohio.

- In June 1994, CSC CompuSource acquired Comdisco's remote computing contracts valued at an estimated $10 million over three years. As part of the agreement, CSC CompuSource will market Comdisco's business continuity services. In turn,

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Comdisco will market CompuSource's item capture service to customers in the New York/New Jersey metropolitan area.

- In June 1993, CSC CompuSource was awarded a five-year $2.3 million contract to support NationsBank's 10 item processing centers in the event of a disaster.

- In April 1992, CSC CompuSource was awarded a ten-year systems operations contract with WCI Steel, Inc. of Warren (OH). The agreement—estimated to bring CSC revenues of $64 million over the life of the contract—calls for CSC to take over leases valued at about $2.5 million for all hardware used in WCI Steel's facility and 51 WCI employees.

The Outsourcing Marketing Division is responsible for marketing CSC's outsourcing resources in the commercial marketplace.

International Business

CSC's European operations provide consulting, software development and systems integration services to national and transnational clients, primarily in Belgium, France, Germany, the Netherlands and the U.K. Contract examples include the following:

- In May 1994, CSC was awarded a three-year, $37 million contract with Belgacom to develop a new billing system and related support systems for Belgium's state-owned telephone company. Teaming with CSC on the project will be AT&T (which will provide NCR hardware to support the new system) and Coopers & Lybrand (which will oversee the quality assurance).

- In March 1994, CSC was awarded a ten-year, $1.5 billion contract with British Aerospace (BAe) that calls for CSC to be BAe's strategic partner in providing information technology services to support its aerospace and defense businesses.

  - CSC is overseeing the development, maintenance and operation of applications data centers, networks and distributed computing across BAe aerospace and defense units.

  - As part of the agreement, CSC is to pay BAe $112 million for its existing information technology resources, including facilities, equipment and software. In addition, about 1,500 BAe employees are transferring to CSC.

  - A new CSC division called Aerospace Systems Division has been created to manage the contract.

- In January 1994, CSC was awarded a five-year, $100 million contract with Ford of Europe Parts & Services whereby CSC will oversee the majority of information technology functions within Ford Parts & Services Operations, which spans all of Europe.

- In November 1993, CSC was awarded a five-year, $90 million outsourcing contract with RAET, one of the top three information technology services companies in the Netherlands. CSC will acquire and manage RAET's computer center and will provide information technology services to both RAET and its clients. A total of 102 RAET employees will also join CSC.

- In February 1993, CSC was awarded an 11-year outsourcing contract estimated between $150 and $200 million with BhS, a leading retailer based in the U.K. CSC is managing

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all of BhS' information technology requirements and taking over a data center and networking connecting 136 retail stores. BhS' 115 data center employees have transferred to CSC.

Data Centers

The Technology Management Group operates three data centers in San Diego, Ft. Worth and Norwich that operate numerous computer systems, including the following:

- IBM 3090, 3084, 3081, 4361, 4381, 9221
- Amdahl 5990 5995
- Cray XMP-28
- CYBER 180-855
- Convex C210
- DEC, IBM, HP, NCR, Harris, Tandem, Stratus and other midrange systems
- Sun, HP, DEC and other workstations.

CSC Credit Services' data center in Houston uses IBM 4381, DEC VAX 8650 and DEC VAX-II/785 systems.

The Health and Administrative Services Division has an Amdahl 5870 installed in Lanham (MD) for claims processing and related insurance functions.

CSC TACS has an IBM 4081 installed in Los Angeles.

CSC Logic, Inc. has an IBM 3090-200E, MVS/ESA installed in Dallas.

In support of its research and development efforts in software engineering, supercomputing and other fields, CSC's Systems Group at Falls Church (VA) operates several laboratories that evaluate equipment lent by manufacturers. Company-owned equipment at this location includes a Relational 1000 and a DEC MicroVAX II.

Alliances

CSC has alliances with a range of vendors for different projects, including Wang, Siemens-Nixdorf, Oracle, Hewlett-Packard and Sun Microsystems.

Competitors

Major competitors by primary service/product area include the following:

- Federal government professional services: TRW, Hughes Aircraft, IBM, PRC, Electronic Data Systems (EDS), General Electric, AT&T, Unisys, Boeing Computer Services and Loral
- Commercial consulting, systems integration and outsourcing: Big Six, Andersen Consulting, EDS, IBM, Perot Systems, Unisys, Booz Allen & Hamilton and McKinsey & Co.
- Medicaid claims processing: Blue Cross/Blue Shield and EDS
- Credit reporting service: TRW Information Services and TransUnion
- Health care systems: Jergovan and Blair, Inc.

Assessment

CSC's strengths include:

- Offering the full spectrum of services—from business re-engineering to facilities management
- A strong technology thrust, focusing on current technical issues such as object-oriented, client/server and rapid application development

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- Leadership role in outsourcing market and managing large, highly complex projects
- Continued strength in federal sector

Challenges over the coming year include:

- Continuing to build strong European group amidst uncertainties about near-term economic recovery
- Handling the increased competitive environment, especially in systems integration and outsourcing.

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COMPUTER SCIENCES CORPORATION

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Chairman & CEO:	William R. Hoover
President & COO:	Van B. Honeycutt
Status:	Public
Stock Exchanges:	NYSE, PSE
Total Employees:	26,000 (11/93)
Total Revenue:	$2,479,847,000
Fiscal Year End:	4/2/93

Key Points

- Computer Sciences Corporation (CSC), founded in 1959, is the largest independent provider of information technology consulting, systems development and integration and outsourcing.
- In June 1993, Van B. Honeycutt was promoted to the newly created position of president and chief operating officer of CSC in order to further strengthen CSC's corporate office as the company continues its growth and development.
- In October 1993, CSC elevated its commercial outsourcing operations to group status in order to further leverage CSC's resources and accelerate its growth in commercial systems operations activities in North America. The restructuring includes moving the Industry Services Group's Technology Management Division and Marketing Division into the newly created Technology Management Group, headed by Edward P. Boykin.
- CSC is finalizing negotiations on a 10-year outsourcing contract with British Aerospace. Annual revenue from the contract will be about $134 million, making it one of the largest outsourcing contracts ever awarded to a single supplier in Europe.

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Company Description

Serving government and commercial clients, CSC provides strategy and management consulting, business re-engineering, information technology consulting, requirements analysis, software development, systems engineering and integration, turnkey computer/communications systems and systems operations (facilities management) services. The company also provides industry-specific proprietary products and services for credit reporting, claims processing, health maintenance organizations and income tax preparation.

Strategy

CSC's strategies are to maintain its dominant position in the U.S. federal marketplace (which contributed 51% of fiscal 1993 revenue), while expanding its market share in non-federal markets through internal growth and acquisitions. The company is dedicated to being the best in technology, business re-engineering and project management.

CSC management has set the objective of becoming one of the top two or three companies in the commercial markets for consulting, systems integration and related professional services in the U.S. and Europe.

- Three factors in the global marketplace are driving strong commercial opportunities for CSC:
  - A strong demand for business solutions such as re-engineering, outsourcing, and the development of systems that bring new efficiencies to maintain market share and control costs;
  - The demand for consultants, systems integrators and outsourcers to help rethink and reshape strategies to keep up with new competition;
  - The need to respond innovatively to more sophisticated and demanded consumers.
- Key technology issues being addressed by CSC include client/server and object-oriented programming. About 50% of all CSC's new commercial business is client/server. The company has established a Center of Excellence to support internal research and is expanding its new CSC Catalyst℠ methodology to promote object-oriented programming.

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CSC's strategy for the federal market includes:

- Capitalizing on growth in information systems as new productivity and efficiency measures are introduced to support defense downsizing, especially in civil agencies;
- Bringing its well-established skills in business re-engineering to the federal arena as government attempts to boost productivity, cut costs and "reinvent" processes;
- Being well represented in every sector of the federal market;
- Pursuing business in networking, digital imaging systems, computer-aided training, geographic information systems, the Department of Defense, NASA and other civil agencies.

Organization/ Structure

CSC's organization structure is shown on the following page. The company currently provides its services through five operating groups:

- The Systems Group, headquartered in Falls Church (VA), is the company's primary resource for computer and communications technology. The group has six divisions that primarily serve the U.S. government.
- The Consulting Group, headquartered in Cambridge (MA), provides management consulting, systems integration and technology consulting services to the commercial marketplace.
- CSC Europe, headquartered in London, provides consulting services to public and private businesses primarily in Europe.
- The Industry Services Group, headquartered in Houston (TX), serves vertical markets with industry-specific services, principally directed at the insurance, health care and consumer finance industries.
- The Technology Management Group, headquartered in Falls Church (VA), is responsible for overseeing all commercial outsourcing-related activities in North America.

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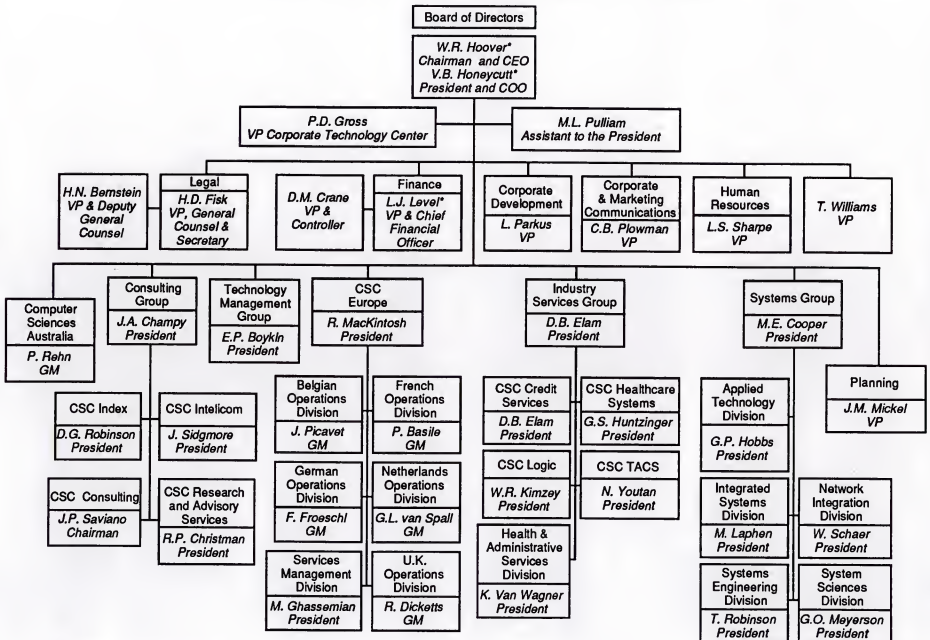
Computer Sciences Corporation Organization Chart



* Member Board of Directors

Financials

Fiscal 1993 revenue reached $2.48 billion, a 17% increase over fiscal 1992 revenue of $2.1 billion. Net income for fiscal 1993 reached $78.1 million, a 15% increase over $68.2 million for fiscal 1992.

In the five-year summary that follows, financials include results of businesses acquired from their respective dates of acquisition as well as the results of businesses sold up to the date of their divestiture:

COMPUTER SCIENCES CORPORATION
FIVE-YEAR FINANCIAL SUMMARY
($ millions, except per share data)

	FISCAL YEAR				
ITEM	4/2/93	4/3/92	3/29/91	3/30/90	3/31/89
Revenue	$2,479.8	$2,113.4	$1,737.8	$1,500.4	$1,304.4
· Percent increase from previous year	17%	22%	16%	15%	13%
Income before taxes	$128.2	$109.2	$102.5	$103.2	$84.5
· Percent increase (decrease) from previous year	17%	7%	(1%)	22%	18%
Net income	$78.1	$68.2	$65.0 (a)	$65.5 (a)	$52.5
· Percent increase (decrease) from previous year	15%	5%	(1%)	25%	21%
Earnings per share	$4.66	$4.12	$4.02 (a)	$4.07 (a)	$3.28
· Percent increase (decrease) from previous year	13%	2%	(1%)	24%	20%

(a) Includes net non-recurring gains of $3.4 million in fiscal 1991 and $11.7 million in fiscal 1990. The fiscal 1991 gain is the result of the partnership CSC formed with Equifax, net of $4.9 million in phase-down costs on certain operations. The fiscal 1990 amount related to a gain of $19.6 million on the sale of CSC's 40% ownership in Infonet, less costs associated with the phase-down of certain international operations.

Approximately 90% of revenue growth during fiscal 1993 was due to internal activities, compared to 77% in fiscal 1992. The balance was from acquisitions.

- Approximately 60% of the internal growth for fiscal 1993 and 1992 came from the commercial outsourcing contract with General Dynamics.

- Revenue from the U.S. government rose 3% to $1.25 billion, reflecting the winning of new contracts. During fiscal 1993, CSC was awarded contracts with a value of $1.1 billion, compared with $1.7

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billion the prior year, representing a win percentage of 45% of contracts awarded, compared with 55% for fiscal 1992.

- Commercial revenue has been growing faster than federal sector revenue. Domestic commercial revenues increased 43% to $990 million in fiscal 1993, reflecting the company's growth in consulting and systems integration and expansion into commercial outsourcing due to the outsourcing contract with General Dynamics and the acquisition of CompuSource.

- CSC's International revenues rose 9% to $235 million during fiscal 1993. Revenue growth was achieved by acquisitions and internal growth, despite revenue reductions in Belgium during fiscal 1993 and 1992 (due to the disposal of certain operations) and revenue reductions in Germany during fiscal 1992 (due to the completion of major projects).

Revenue for the six months ending October 1, 1993 reached $1.23 billion, up slightly from $1.22 billion for the same period in 1992. Net income was $41.3 million, a 24% increase over $33.2 million for the same period a year ago.

- Net income for the period ending October 1, 1993 includes $4.9 million from a change in the method of accounting for income taxes.

- Federal revenues declined 4% during the period because two large contracts were phased out. However, during the first six months of this year, CSC was awarded contracts with a face value of $1.5 billion, which is substantially more than the $1.1 billion CSC won during all last year.

- Commercial revenues for the period rose 5% and international revenues rose 11% as U.K. operations continue to perform well.

A three-year summary of source of revenue by operating group (prior to the formation of the Technology Management Group) follows:

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CSC SOURCES OF REVENUE
($ millions)

	FISCAL YEAR					
	4/2/93		4/3/92		3/29/91	
OPERATING GROUP	REVENUE $	PERCENT OF TOTAL	REVENUE $	PERCENT OF TOTAL	REVENUE $	PERCENT OF TOTAL
Systems Group	$1,272.8	51%	$1,202.8	57%	$1,046.0	60%
Consulting Group (a)	489.5	20%	403.3	19%	370.9	21%
Industry Services Group (b)	717.5	29%	507.3	24%	320.9	19%
TOTAL REVENUE	**$2,479.8**	**100%**	**$2,113.4**	**100%**	**$1,737.8**	**100%**

(a) Includes the operations of CSC Europe.

(b) Includes the operations of the Technology Management Division and Marketing Division, which are now included in the Technology Management Group.

The Systems Group's fiscal 1993 revenue increased 6% due to new contract awards.

The Consulting Group's fiscal 1993 revenue increased 21% over fiscal 1992 due primarily to rapid growth in the demand for business re-engineering and systems integration services.

The Industry Services Group (prior to the formation of the Technology Management Group) reported the largest gains during the year. Revenue for the group rose 41%, or more than $210 million, reflecting the outsourcing agreement with General Dynamics and the acquisition of CompuSource. These commercial outsourcing activities have been moved to CSC's newly created Technology Management Group.

Market Financials

A three-year summary of source of revenue by industry follows:

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CSC
SOURCE OF REVENUE SUMMARY
($ millions)

	FISCAL YEAR					
	4/2/93		4/3/92		3/29/91	
ITEM	REVENUE $	PERCENT OF TOTAL	REVENUE $	PERCENT OF TOTAL	REVENUE $	PERCENT OF TOTAL
Federal Government						
- Department of Defense	$675.7	27%	$620.2	29%	$556.1	32%
- NASA	260.7	11%	268.2	13%	243.3	14%
- Civil Agencies	318.0	13%	323.8	15%	278.1	16%
Subtotal	$1,254.4	51%	$1212.2	57%	$1,077.5	62%
Commercial (a)	$990.3	40%	$689.6	33%	$451.8	26%
International (b)	$235.1	9%	$211.6	10%	$208.5	12%
TOTAL	**$2,479.8**	**100%**	**$2,113.4**	**100%**	**$1,737.8**	**100%**

(a) Includes state and local government revenue of about $49 million, $37 million, and $41 million in fiscal 1993, 1992, and 1991, respectively.

(b) Includes foreign revenue of U.S.-based operations.

Commercial revenue is derived from Fortune 500 companies in manufacturing, insurance, banking and finance, telecommunications, and utilities; and the retail, wholesale/distribution, medical, and services industries.

A further breakdown of CSC's $990 million in U.S. commercial revenue for fiscal 1993 is estimated as follows:

Manufacturing and distribution	43%
Banking and finance	16%
Medical	12%
Insurance	10%
Telecommunications	10%
Other	9%
	100%

International revenue is derived from foreign governments, financial institutions, transportation companies and manufacturers.

Geographic Markets

CSC's revenue and operating income by geographic region for the last three years has been as follows ($ millions):

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CSC
GEOGRAPHIC SOURCE OF REVENUE SUMMARY
($ millions)

	FISCAL YEAR					
	4/2/93		4/3/92		3/29/91	
ITEM	REVENUE $	PERCENT OF TOTAL	REVENUE $	PERCENT OF TOTAL	REVENUE $	PERCENT OF TOTAL
Revenue						
- U.S.	$2,244.7	91%	$1,904.5	90%	$1,535.1	88%
- International (a)	235.1	9%	208.9	10%	202.7	12%
	$2,479.8	100%	$2,113.4	100%	$1,737.8	100%
Operating income (loss)						
- U.S.	$164	109%	$123	95%	$115	98%
- International (a)	(14)	(9%)	7	5%	2	2%
	$150	100%	$130	100%	$117	100%

(a) Does not include foreign operations from U.S.-based entities.

CSC maintains offices in more than 300 locations throughout the U.S. Operations in the U.K., Belgium, France, Germany, the Netherlands, and Poland are through subsidiary companies.

Acquisitions

Acquisitions made during 1993 and 1992 include the following:

- Effective November 1, 1993, CSC acquired Computer Sciences Australia (CSA) from Australian Mutual Provident Society (AMP) and signed a $300 million, 10-year outsourcing agreement with AMP.
  - CSA is a systems integration, outsourcing and software development company with annual revenue of about $80 million and 1,100 employees.
  - Under the outsourcing agreement, CSA will oversee AMP's information technology operations and acquire the assets of its major data center located in Bondi, a suburb of Sydney. CSA will also operate AMP's data network which links offices spanning Hong Kong, New Zealand, Australia and the U.K. In addition, 100 AMP information technology personnel will join CSA.
  - The acquisition and the outsourcing contract give CSC increased presence in the Pacific Rim area, a geographic market critical to CSC's growth.

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- In August 1993, CSC Intelicom acquired BankIllinois Company (BIC) of Champaign (IL).
  - BIC provides billing and administrative services for midsized cellular carriers. Its TRIS+™ software product supports all phases of a wireless carrier's operations, including billing, customer service and equipment inventory.
  - BIC, with 125 employees currently serves about 35 clients in the U.S. It will operate as a unit of CSC Intelicom.
- In May 1992, CSC Intelicom acquired the principal telecommunications assets of EPC International of Newport Beach (CA).
  - EPC provides billing and administrative support applications software to the international wireless telecommunications market. Its major product is ISIS™, a billing and administration system that currently supports wireless carriers in New Zealand, Sweden, Denmark, Mexico and Canada.
  - EPC operates as a unit of CSC Intelicom (which was acquired by CSC during 1991).

Employees

As of November 1993, CSC had approximately 27,000 employees, segmented as follows:

Systems Group	55%
Industry Services Group	13%
Technology Management Group	10%
Consulting Group	10%
CSC Europe	6%
Other	6%
	100%

Key Products and Services

A three-year summary of source of revenue, as reported by CSC, follows:

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CSC
THREE-YEAR SOURCE OF REVENUE SUMMARY
($ millions)

	FISCAL YEAR					
	4/2/93		4/3/92		3/29/91	
ITEM	REVENUE $	PERCENT OF TOTAL	REVENUE $	PERCENT OF TOTAL	REVENUE $	PERCENT OF TOTAL
Professional services	$901	37%	$718.6	34%	$550.2	32%
Systems integration	617	25%	570.6	27%	562.0	32%
Outsourcing	962	38%	824.2	39%	625.6	36%
TOTAL	**$2,479.8**	**100%**	**$2,113.4**	**100%**	**$1,737.8**	**100%**

INPUT estimates that CSC's $2.24 billion in fiscal 1993 U.S. information services revenue was derived approximately as follows:

Systems operations	32%
Systems integration	30%
Professional services	30%
Processing/network services	6%
Turnkey systems	2%
	100%

U.S. Federal Government Business

The Systems Group is the company's primary provider of technical services to the federal government. Services provided include systems engineering and integration, the development of custom-designed computer-based systems and communications systems, operational support of clients' technical activities, clients' computer facilities management and turnkey system development.

The Systems Group consists of five units:

- The Integrated Systems Division, based in Moorestown (NJ), designs, implements and integrates systems for office automation, digital imaging and administrative and engineering support, and for military uses such as weapons control, logistics, wargaming and command, control and communications (C^3I).

- The System Sciences Division, headquartered in Calverton (MD), provides systems engineering, analysis, software development, and end-to-end integrated data systems and services primarily to aerospace clients such as NASA and the FAA.

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- The Network Integration Division (formerly the Network Systems Division), headquartered in Falls Church (VA), provides network and systems integration to both government and industry. Specializing in networks, distributed systems, and network computing, the division provides a range of services, from architecture through operations and maintenance.

- The Systems Engineering Division (formerly the Special Projects Division), headquartered in Falls Church (VA), performs high-level technical management projects, known as systems engineering and technical assistance (SETA), for the government. The division also performs research and development in systems and software technologies and special activities in signal processing, communications systems and information processing.

- The Applied Technology Division, headquartered in Falls Church (VA), provides systems operations (facilities management) services, primarily for NASA; provides operations and maintenance services to aircraft and weapons test centers; and provides software development support to federal agencies. This division, CSC's largest business unit, has about 9,000 employees.

Recent contract awards for the group include the following:

- In November 1993, an industry team headed by CSC was awarded one of six Defense Technical Integration Services (DTIS) contracts by the Defense Information Systems Agency (DISA).

  The contracts will provide the tools needed to move the DoD and other government agencies into a multitiered, open systems environment. The contracts were awarded for one year, with six one-year options, and have a combined maximum value of $935 million.

  - CSC, leading a team of 17 subcontractors, will perform about 70% of the work on its contract with the subcontractors handling the rest.

- In October 1993, CSC was awarded a five-year, $25 million contract to provide engineering and technical support to the Naval Command, Control and Ocean Surveillance Center in San Diego (CA).

- In July 1993, CSC was awarded a seven and one-half-year, $200 million contract to operate and maintain NASA's Langley Central Scientific Computing Complex in Hampton (VA). CSC has supported NASA Langley for more than 20 years and has been a NASA contractor for more than 30 years.

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- In July 1993, CSC was awarded a six-year, $566 million contract to provide range technical services to the Air Force Eastern Range at Patrick Air Force Base in Cocoa Beach (FL) through a joint venture with Raytheon.

- In June 1993, CSC was awarded two contracts with a combined value of $15.6 million to provide systems integration and support services to the Martin Marietta Aegis production contract.

- In June 1993, CSC was awarded a six-year, $76.8 million contract by the Department of Defense to implement a major global telecommunications and open system architecture and complete the migration of a current wide-area network system to that architecture.

- In May 1993, CSC was awarded an eight-year, $17 million contract by the Social Security Administration to develop an integrated image-based data capture system to speed the way information is processed.

- In April 1993, CSC was awarded a 10-year, $400 million contract by the Bureau of Land Management to provide a new Automated Land and Mineral Record System to more efficiently manage the nation's public lands.

- In February 1993, CSC was awarded an eight-year, $66.5 million contract by the Office of Personnel Management to design, develop and implement an automated processing system to speed and simplify the payment of retirement benefits for federal employees.

- In December 1992, CSC was awarded a five-year $62.1 million contract by the U.S. Army to provide technical assistance and computer programming support to the U.S. Army Information Systems Software Development Center-Lee at Fort Lee (VA) and technical support services for a range of war and peacetime Standard Army Management Information logistics programs.

- In April 1992, CSC was awarded an eight-year, $575 million contract (including options) by the U.S. Air Force to provide engineering and instrumentation in support of flight testing and training programs, and maintenance and operation of data collection and processing systems at the Edwards Flight Test Center and Utah Test and Training Range, plus associated remote locations.

CSC is a member of the AT&T team selected in December 1988 to replace the federal government's current telecommunications system. Known as FTS 2000, the program provides government agencies with an integrated system for voice, data and video services. CSC is providing a billing system and other software services for FTS 2000.

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Both CSC's Systems Group and CSC Consulting unit are engaged in the FTS 2000 program.

U.S. Commercial Business:

CSC's services to domestic commercial clients are provided primarily through the Consulting Group, the Industry Services Group and the newly formed Technology Management Group.

Consulting Group:

The Consulting Group provides management consulting, systems integration, requirements analysis, system design, software development, system engineering, communications system engineering and facilities management for non-federal organizations worldwide. These activities are performed by the following units:

- CSC Index, Inc., based in Cambridge (MA) with nearly 500 employees, is an international management consulting firm that assists corporations in achieving dramatic improvements in their operations and financial performance. CSC Index pioneered the business re-engineering approach.

- CSC Consulting (formerly CSC Partners, Inc.) is a wholly owned subsidiary based in Waltham (MA) with 1,500 employees. CSC's Cleveland Consulting Associates unit has been merged into CSC Consulting.

- CSC Intelicom Inc., based in Bethesda (MD) with 225 employees, specializes in products and services to telecommunications firms.

- CSC Research and Advisory Services, based in Cambridge (MA), is a management education service whose sponsors include more than 600 of the world's largest organizations. Executive programs are offered on strategy, re-engineering, technology management, organizational change and other topics.

CSC Index focuses on three main disciplines: business strategy and operations; information technology; and change management.

- Business strategy and operations includes:

  - Formulating business strategies
  - Redesigning management and operational processes to achieve goals
  - Developing new approaches for working with suppliers and customers to improve speed and service

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- Information technology consulting includes:
  - Identifying opportunities where information technology can enable new strategic initiatives to be taken
  - Developing approaches for the competitive application of information technology
- Change management consulting includes:
  - Assessing and developing human resources to meet business needs
  - Building a clear understanding of and commitment to required business changes
  - Creating and implementing new structures for the systems organization
- In its business re-engineering work, CSC Index draws on all three of the disciplines described above.
- Index works primarily for the Fortune 500 manufacturing and service companies in the U.S. and the Financial Times 500 in Europe. The firm has assisted 19 of the 25 largest U.S. corporations.

CSC Consulting combines strong industry expertise with deep technology capabilities to help Fortune 1000 companies solve critical business problems.

- The unit provides comprehensive services in three broad areas--management consulting, systems integration and technology consulting.
  - Management consulting services include:
    - Industry consulting
    - Business process redesign
    - Change management
    - IT planning and strategy
    - TQM/business process improvement
    - Technical architecture development
    - Business architecture development
    - IT re-engineering
  - Systems integration services include:
    - Project and program management and implementation
    - Conversion and migration planning
    - Package evaluation, selection and implementation

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  - Legacy system migration
  - Software re-engineering
  - Transitional outsourcing

- Technology consulting services include:

  - Database consulting
  - Performance engineering
  - Network architecture and design
  - Systems architecture and design
  - Systems management
  - Application maintenance outsourcing
  - Staff support

- The unit services a range of industries, including consumer goods, distribution and logistics, financial services, manufacturing, pharmaceuticals, retail, telecommunications and utilities. CSC Consulting also serves state and local governments.

- In October 1992, CSC was named by Hewlett-Packard's Cooperative Computing Systems Division as systems integrator of choice for its major Fortune 200 accounts in North America.

- CSC has had a continuous contractual relationship with AT&T for over 20 years.

- For U.S. Sprint, CSC is developing a system that automates service requests for consumers and businesses.

CSC Intelicom provides applications software products and associated support services to the regional Bell operating companies, major independents and interexchange carriers in North America and Europe.

- CSC also markets ISIS™, a billing and administrative support system for the wireless communications market, including cellular, GSM cellular, PCNs and paging applications. ISIS, which was acquired with EPC International in May 1992, runs on a range of systems, from PCs to mainframes.

- TRIS+™, acquired in August 1992 with BankIllinois Company, is a wireless billing system for midsized cellular carriers that runs on a distributed basis.

- In June 1992, CSC signed a joint development and distribution agreement with Coral Systems Inc. (Boulder, CO), that gives CSC exclusive marketing rights to FraudBuster™, software that helps wireless carriers track fraud, and Home Location Register, which

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provides "seamless roaming" to aid in tracking users as they move from one calling area to another.

- In January 1993, CSC signed a joint agreement with LM Ericsson, the world's largest supplier of cellular switching systems, authorizing Ericsson to sell FraudBuster with its open platform that links various systems to a switch.

- In March 1993, CSC signed a marketing agreement with Davox Corp. (Billerica, MA) which specializes in integrated inbound/outbound calling system.

- In November 1993, CSC Intelicom was awarded a four-year, $25 million contract from Nextel Communications, Inc. to develop a business management system that streamlines the way cellular customers are billed.

- In November 1992, CSC and Sun formed a service alliance agreement to pursue systems integration business in the wireless telecommunications market.

In December 1992, CSC announced Enterprise CALS (ECALS), the first structured global information management system that allows users throughout a business organization to share information, regardless of platforms, operating systems or databases involved. The product is designed to support companies seeking to simplify and speed the process of bringing a product and/or service to market and will be an important system component for re-engineering organizations.

In October 1993, CSC's Consulting Group launched CSC Genesis, a research program to identify emerging business and management trends in business strategy, process management, organizational change and corporate culture.

Industry Services Group:

The Industry Services Group serves vertical markets with outsourcing and industry-specific services, principally directed at the insurance, health care and consumer finance industries, through seven divisions.

The Health and Administrative Services Division, with 1,000 employees, provides large-scale medical claims processing, systems operations and related services for state and federal agencies.

- In June 1991, CSC was awarded a $149 million contract with the New York State Department of Social Services to act as fiscal agent for the state's Medicaid program. The contract continues work the company has performed since 1986.

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- In June 1993, CSC was awarded a four-year, $50 million contract to continue processing health claims and disability benefits for the U.S. Department of Labor's Federal Black Lung Program.

- The division has provided statistical support services for the Federal Emergency Management Agency's (FEMA) National Flood Insurance Program since 1983. In May 1993, CSC was awarded a five-year, $48.6 million renewal contract by FEMA.

- In April 1993, CSC was awarded a three-year, $11.3 million contract by the Joint Commission on Accreditation of Healthcare Organizations to support the development of the Indicator Monitoring System designed to continuously monitor and compare the performance of most of the nation's health care organizations.

CSC Logic, Inc., with 252 employees, provides systems operations, processing services and applications software products for the administration of life and disability insurance for credit loans and mortgages, collateral protection insurance and insurance for automobile manufacturers' warranties.

- The majority of CSC Logic's business is from full administration (systems operations) services, followed by processing services and software licensing. CSC Logic's CALS-II software is available for IBM and compatible mainframes and microcomputers and through CSC Logic's data center in Dallas.

- CSC Logic is participating in a $39.7 million, three-year contract from the Resolution Trust Corporation to provide processing and asset management services for assets of failed thrifts in Texas, Louisiana and Mississippi.

- CSC Logic currently has approximately 100 clients, including insurance companies, financial institutions and financial subsidiaries of automobile manufacturers.

CSC Healthcare Systems, Inc., with 270 employees, provides turnkey systems, applications software, and associated support services to managed health care companies, hospitals and large clinics.

- ComCare is a Prime-based turnkey system for health maintenance organizations, preferred provider organizations, third-party administrators and traditional indemnity carriers. ComCare includes modules for membership and billing, claims processing, utilization review, finance and accounting and ancillary clinical functions. There are over 200 systems installed in 30 states.

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- The division also provides IBM AS/400 and 3090-based applications software and turnkey systems for medical groups, managed health care organizations, and private practices nationwide.
  - The products support various medical office functions, including utilization management, benefits coordination, claims adjudication, premium and fee-for-service billing, membership and general financial functions.
  - The products are installed in over 800 physicians' offices and at more than 60 health maintenance organizations (HMOs).

CSC Credit Services, with 1,400 employees, is a major supplier of consumer credit reports and account management services to thousands of credit grantors nationwide.

- As the result of an agreement formed with Equifax during 1988, credit report processing is furnished through Equifax's credit operations.
  - CSC has converted its more than 110 million consumer credit files to Equifax's computer system to create a joint national consumer credit file from which both companies can sell reports from each other's files to credit grantors, with Equifax performing the processing. This joint credit file provides nationwide credit grantors with a single source of credit information, instead of having to deal with multiple sources on a local or regional basis.
  - CSC Credit Services continues to own its credit files and receives all revenues from the sale of the credit information they contain. CSC pays Equifax a processing fee for each report supplied to a credit grantor.
- CSC continues to own and operate 31 credit bureaus. CSC Credit Services also owns 31 collection agencies and provides all processing services for the collection agencies.
- CSC Credit Services is also a leader in supporting the federal government in the collections arena. Since 1987, it has provided collections services to the General Services Administration; it also supports the Department of Education, collecting unpaid student loans for its Western and Midwestern regions.
- CSC Enterprises, formed in December 1990, is a general partnership with CSC, affiliates of Equifax, and Merel Corporation that operates CSC's credit services operations and carries out other business strategies through acquisition and investments.

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CSC TACS Division, with 75 employees, provides income tax return processing services to professional tax preparers located in 15 western and midwestern states. Services are provided on a batch basis from a data center in Los Angeles, with direct access available via communications links.

The Technology Management Group:

Through the Technology Management Group, CSC provides a range of outsourcing services, including systems analysis, applications development, network operations and data center management (systems operations) to commercial clients.

In July 1993, CSC was awarded a 10-year, $26.7 million outsourcing contract with United Illuminating Company (UI) to assume day-to-day management of UI's data center operations in Norwich (CT).

In March 1993, CSC was awarded a three-year, $27 million technology management contract with Sun Microsystems. The agreement calls for Sun to temporarily transfer all of its mainframe data center activities to CSC while converting to a client/server environment.

In September 1991, CSC and General Dynamics Corporation formed a 10-year agreement under which CSC will provide systems operations services to General Dynamics' aerospace and defense units.

- CSC paid General Dynamics approximately $184 million for facilities, equipment, software and services.

- CSC is guaranteed to receive minimum revenues aggregating on less than $800 million for the first three years of the contract. During fiscal 1993, the contract generated approximately $370 million in revenues to CSC.

- General Dynamics has data centers in Norwich (CT), Fort Worth (TX) and San Diego (CA), and another 28 service sites around the country. These facilities and approximately 2,500 employees of General Dynamics Data Systems joined CSC.

- During fiscal 1993, General Dynamics divested three business included under the contract. The agreements provide for continuation by the successors (Hughes Missile Systems Co., Lockheed and The Carlyle Group) or payments of a lump sum.

CSC CompuSource, based in Cary (NC), is a unit of the Technology Management Group and provides outsourcing, laser printing and disaster recovery services.

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- CSC CompuSource maintains data centers in North Carolina, Massachusetts, Pennsylvania and Ohio.

- In June 1993, CSC CompuSource was awarded a five-year $2.3 million contract to support NationsBank's 10 item processing centers in the event of a disaster.

- In April 1992, CSC CompuSource was awarded a ten-year systems operations contract with WCI Steel, Inc. of Warren (OH). The agreement--estimated to bring CSC revenues of $64 million over the life of the contract--calls for CSC to take over leases valued at about $2.5 million for all hardware used in WCI Steel's facility and 51 WCI employees.

The Outsourcing Marketing Division is responsible for marketing CSC's outsourcing resources in the commercial marketplace.

International Business:

CSC's European operations provide consulting, software development and systems integration services to national and transnational clients, primarily in Belgium, France, Germany, the Netherlands and the U.K. Contract examples include the following:

- In November 1993, CSC announced it had been selected by leading U.K. defense and commercial aerospace manufacturer, British Aerospace, as its preferred supplier for the outsourcing of a substantial portion of the information technology functions of its aerospace and defense businesses.

  - CSC will take over management of applications, data centers, networks and distributed computing across more than a dozen British Aerospace and defense business units.

  - The 10-year contract, which is expected to be finalized in early 1994, will provide CSC will annual revenue of approximately $134 million.

  - CSC will pay British Aerospace approximately $112 million for its existing information technology resources, including facilities, equipment and software. In addition, about 1,250 British Aerospace employees will transfer to CSC.

- In November 1993, CSC was awarded a five-year, $90 million outsourcing contract with RAET, one of the top three information technology services companies in the Netherlands. CSC will acquire and manage RAET's computer center and will provide information

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technology services to both RAET and its clients. A total of 102 RAET employees will also join CSC.

- In February 1993, CSC was awarded an 11-year outsourcing contract estimated between $150 and $200 million with BhS, a leading retailer based in the U.K. CSC is managing all of BhS' information technology requirements and taking over a data center and networking connecting 136 retail stores. BhS' 115 data center employees have transferred to CSC.

- In April 1992, CSC was awarded a two-year, $23 million Logistics Information Technology Strategy contract with the Royal Air Force to define the requirements for a modernized logistics system.

- CSC is managing all computer services for the Mersey Regional Health Authority in England under a $16.2 million facilities management contract.

- CSC is designing and developing a new generation of customer-based applications supporting the lending, insurance, and brokerage operations of the Bradford & Bingley Building Society (U.K.)

Data Centers

The Technology Management Group operates three data centers in San Diego, Ft. Worth, and Norwich that operate numerous computer systems, including the following:

- IBM 3090, 3084, 3081, 4361, 4381, 9221
- Amdahl 5990 5995
- Cray XMP-28
- CYBER 180-855
- Convex C210
- DEC, IBM, HP, NCR, Harris, Tandem, Stratus, and other midrange systems
- Sun, HP, DEC, HP/Apollo, and other workstations

CSC Credit Services' data center in Houston uses IBM 4381, DEC VAX 8650 and DEC VAX-II/785 systems.

The Health and Administrative Services Division has an Amdahl 5870 installed in Lanham (MD) for claims processing and related insurance functions.

CSC TACS has an IBM 4081 installed in Los Angeles.

CSC Logic, Inc. has an IBM 3090-200E, MVS/ESA installed in Dallas.

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In support of its research and development efforts in software engineering, supercomputing and other fields, CSC's Systems Group at Falls Church (VA) operates several laboratories that evaluate equipment lent by manufacturers. Company-owned equipment at this location includes a Relational 1000 and a DEC MicroVAX II.

Alliances

CSC has alliances/agreements with various vendors, including the following:

- Sun Microsystems (network integration services for the aerospace industry; integration services for the telecommunications industry)

Competitors

Major competitors by primary service/product area include the following:

- Federal government professional services: TRW, Hughes Aircraft, IBM, PRC, Electronic Data Systems (EDS), General Electric, AT&T, Unisys, Boeing Computer Services and Loral
- Commercial professional services: Big Six, EDS, IBM, Booz Allen & Hamilton and McKinsey & Co.
- Medicaid claims processing: Blue Cross/Blue Shield and EDS
- Credit reporting service: TRW Information Services and TransUnion
- Health care systems: Jergovan and Blair, Inc.

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INPUT

COMPUTER SCIENCES CORPORATION

2100 East Grand Avenue
El Segundo, CA 90245
Phone: (213) 615-0311

Chairman & President:	William R. Hoover
Status:	Public
Stock Exchanges:	NYSE, PSE
Total Employees:	26,500 (6/92)
Total Revenue:	$2,113,351,000
Fiscal Year End:	4/3/92

Key Points

- Computer Sciences Corporation (CSC), founded in 1959, is the largest independent provider of information technology consulting, systems, integration, and outsourcing.
- CSC management has set the objective of becoming one of the top two or three companies in the commercial markets for consulting, systems integration, and related professional services in the U.S. and Europe.
- Its strategies are to maintain its dominant position in the U.S. federal marketplace (which contributed 57% of fiscal 1992 revenue), while expanding its market share in non-federal markets through internal growth and acquisitions.
- To position itself for a leading role in the commercial marketplace, CSC has expanded its consulting and implementation capabilities, established a branch-office structure, began the transfer of technology gained in large federal system projects to its commercial organization, and continues an aggressive acquisition program.

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Company Description

Serving government and commercial clients, CSC provides management consulting in information technology, requirements analysis, software development, systems engineering and integration, turnkey computer/communications systems, and systems operations (facilities management) services. The company also provides industry-specific proprietary products and services for credit reporting, claims processing, health maintenance organizations, and income tax preparation.

CSC's organization structure is shown in the exhibit. The company currently provides its products and services through four operating groups:

- The Systems Group, headquartered in Falls Church (VA), is the company's primary resource for computer and communications technology. The group has six divisions that primarily serve the U.S. government.
- The Consulting Group, headquartered in Cambridge (MA), is the counterpart of the Systems Group in the commercial marketplace.
- CSC Europe, headquartered in London, provides consulting services to public and private businesses primarily in Europe.
- The Industry Services Group, headquartered in El Segundo (CA), serves vertical markets with outsourcing and industry-specific services, principally directed at the insurance, health care, and consumer finance industries.

Financials

Fiscal 1992 revenue reached $2.1 billion, a 22% increase over fiscal 1991 revenue of $1.74 billion. Net income for fiscal 1992 reached $68.2 million, a 5% increase over $65.0 million for fiscal 1991. In the five-year summary that follows, financials include results of businesses acquired from their respective dates of acquisition as well as the results of businesses sold up to the date of their divestiture:

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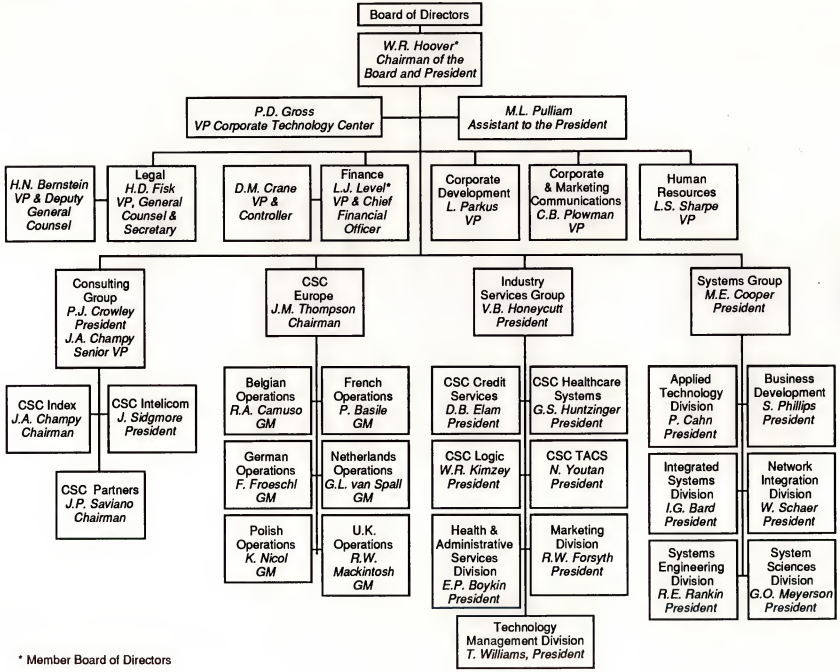
EXH[illegible]

Computer Sciences Corporation Organization Chart



* Member Board of Directors

COMPUTER SCIENCES CORPORATION
FIVE-YEAR FINANCIAL SUMMARY
($ millions, except per share data)

	FISCAL YEAR				
ITEM	4/3/92	3/29/91	3/30/90	3/31/89	4/1/88
Revenue	$2,113.4	$1,737.8	$1,500.4	$1,304.4	$1,152.4
· Percent increase from previous year	22%	16%	15%	13%	12%
Income before taxes	$109.2	$102.5	$103.2	$84.5	$71.4
· Percent increase (decrease) from previous year	7%	(1%)	22%	18%	23%
Net income	$68.2	$65.0 (a)	$65.5 (a)	$52.5	$43.5
· Percent increase (decrease) from previous year	5%	(1%)	25%	21%	35%
Earnings per share	$4.12	$4.02 (a)	$4.07 (a)	$3.28	$2.73
· Percent increase (decrease) from previous year	2%	(1%)	24%	20%	31%

(a) Includes net non-recurring gains of $3.4 million in fiscal 1991 and $11.7 million in fiscal 1990. The fiscal 1991 gain is the result of the partnership CSC formed with Equifax, net of $4.9 million in phase-down costs on certain operations. The fiscal 1990 amount related to a gain of $19.6 million on the sale of CSC's 40% ownership in Infonet, less costs associated with the phase-down of certain international operations.

Approximately 77% of revenue growth during fiscal 1992 was due to internal activities, compared to 70% in fiscal 1991. The balance was from acquisitions during the two-year period.

- Over half of the internal growth for fiscal 1992 came from the commercial outsourcing contract with General Dynamics.
- Revenue from the U.S. government rose 13% to $1.2 billion, reflecting the winning of new contracts. During fiscal 1992, CSC was awarded contracts with a value of $1.7 billion, compared with $1.2 billion the prior year, representing a win percentage of 55% of contracts awarded, compared with 56% for fiscal 1991.
- Commercial revenue has been growing faster than federal sector revenue. Domestic commercial revenues increased 49% to $689 million in fiscal 1992, reflecting the company's expansion into commercial outsourcing due to the outsourcing contract with General Dynamics and the acquisition of CompuSource.

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- CSC's European revenues rose 2% to $205 million during fiscal 1992. Revenue growth was largely offset by the disposal of certain operations in Belgium and the completion of major projects in Germany. Operating losses were $13.4 million in fiscal 1992, reflecting recessionary economic conditions in Europe and the cost of major restructuring, especially in Belgium.

Revenue for the three months ending July 3, 1992 reached $605.1 million, a 33% increase over $456.4 million for the same period in 1991. Net income rose 12%, from $14.4 million to $16.1 million. Commercial revenue rose 78%, while federal revenue rose 7% from the same period a year ago.

A three-year summary of source of revenue by operating group follows:

CSC SOURCES OF REVENUE
($ millions)

	FISCAL YEAR					
	4/3/92		3/29/91		3/30/90	
OPERATING GROUP	REVENUE $	PERCENT OF TOTAL	REVENUE $	PERCENT OF TOTAL	REVENUE $	PERCENT OF TOTAL
Systems Group	$1,202.8	57%	$1,046.0	60%	$966.2	64%
Consulting Group (a)	403.3	19%	370.9	21%	276.0	18%
Industry Services Group	507.3	24%	320.9	19%	258.2	18%
TOTAL REVENUE	**$2,113.4**	**100%**	**$1,737.8**	**100%**	**$1,500.4**	**100%**

(a) Includes the operations of CSC Europe.

The Systems Group's fiscal 1992 revenue increased 15% due to new contract awards.

The Consulting Group's fiscal 1992 revenue increased 9% over fiscal 1991. The group's range of expertise was expanded with the acquisitions of Butler Cox and Intelicom.

The Industry Services Group reported the largest gains during the year. Revenue for the group rose 58%, or over $185 million, reflecting the outsourcing agreement with General Dynamics and the acquisition of CompuSource.

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Acquisitions

Acquisitions made by CSC during fiscal 1992 and 1991 include the following:

- In May 1992, CSC Intelicom acquired the principal telecommunications assets of EPC International of Newport Beach (CA).
  - EPC provides billing and administrative support applications software to the international wireless telecommunications market.
  - EPC operates as a unit of CSC Intelicom (which was acquired by CSC during 1991).
- In October 1991, CSC completed the acquisition of Intelicom Solutions Corporation (formerly Telic Corporation) of Bethesda (MD). Terms of the cash purchase were not disclosed.
  - Intelicom, with annual revenues of approximately $50 million, is the largest independent provider of software to the telecommunications industry. Its customer base includes AT&T, GTE, and the seven regional Bell operating companies.
  - Intelicom now operates as a business unit of the Consulting Group.
- In July 1991, CSC acquired CompuSource of North Carolina. Terms of the purchase were not disclosed.
  - CompuSource, with annual revenues of $20 million, provides systems operations and processing services to over 300 clients, including commercial insurance and financial services firms.
  - CompuSource operates through Research Triangle Time Sharing Corporation and Provident Recovery Systems Inc. and maintains data centers in North Carolina, Massachusetts, Pennsylvania, and Ohio.
  - CompuSource now operates as part of the Health and Administrative Services Division within the Industry Services Group.
- In May 1991, CSC acquired Butler Cox, a London-based information technology management consulting firm with annual revenues of approximately $18 million. Its operations have been integrated into CSC Index.

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Employees

As of June 1992, CSC had approximately 26,500 employees, segmented as follows:

Systems Group	62%
Industry Services Group	24%
Consulting Group	7%
CSC Europe	6%
Other	1%
	100%

Competitors

Major competitors by primary service/product area include the following:

- Federal government professional services: TRW, Hughes Aircraft, IBM, PRC, Electronic Data Systems (EDS), General Electric, AT&T, Unisys, Boeing Computer Services, and Loral
- Commercial professional services: Andersen Consulting, EDS, and IBM
- Medicaid claims processing: Blue Cross/Blue Shield and EDS
- Credit reporting service: TRW Information Services and TransUnion
- Health care systems: Jergovan and Blair, Inc.

Key Products and Services

A three-year summary of source of revenue, as reported by CSC, follows:

CSC
THREE-YEAR SOURCE OF REVENUE SUMMARY
($ millions)

	FISCAL YEAR					
	4/3/92		3/29/91		3/30/90	
ITEM	REVENUE $	PERCENT OF TOTAL	REVENUE $	PERCENT OF TOTAL	REVENUE $	PERCENT OF TOTAL
Professional services	$718.6	34%	$550.2	32%	$600.0	40%
Systems Integration	570.6	27%	562.0	32%	525.1	35%
Outsourcing	824.2	39%	625.6	36%	375.3	25%
TOTAL	**$2,113.4**	**100%**	**$1,737.8**	**100%**	**$1,500.4**	**100%**

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INPUT estimates that CSC's $1.9 billion in fiscal 1992 U.S. information services revenue was derived approximately as follows:

Systems operations	32%
Systems integration	32%
Professional services	31%
Processing/network services	3%
Turnkey systems	2%
	100%

U.S. Federal Government Business

The Systems Group is the company's primary provider of technical services to the federal government. Services provided include systems engineering and integration, the development of custom-designed computer-based systems and communications systems, operational support of clients' technical activities, clients' computer facilities management, and turnkey system development.

The Systems Group consists of six units:

- The Integrated Systems Division, based in Moorestown (NJ), designs, implements, and integrates systems for office automation, digital imaging, and administrative and engineering support, and for military uses such as weapons control, logistics, wargaming, and command, control, and communications (C^3I)

- The System Sciences Division, headquartered in Calvert (MD), provides systems engineering, analysis, software development, and end-to-end integrated data systems and services primarily to aerospace clients such as NASA and the FAA.

- The Network Integration Division (formerly the Network Systems Division), headquartered in Falls Church (VA), provides network and systems integration to both government and industry. Specializing in networks, distributed systems, and network computing, the division provides a range of services, from architecture through operations and maintenance.

- The Systems Engineering Division (formerly the Special Projects Division), headquartered in Falls Church (VA), performs high-level technical management projects, known as systems engineering and technical assistance (SETA), for the government. The division also performs research and development in systems and software technologies, and special activities in signal processing, communications systems, and information processing.

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- The Applied Technology Division, headquartered in Falls Church (VA), provides systems operations (facilities management) services, primarily for NASA; provides operations and maintenance services to aircraft and weapons test centers; and provides software development support to federal agencies. This division, CSC's largest business unit, has about 9,000 employees.

- The Business Development Division, located in Falls Church (VA), is responsible for the marketing of CSC's resources to solve federal agencies' problems in computer and communications systems technology.

Recent contract awards for the group include the following:

- In April 1992, CSC was awarded an eight-year, $575 million contract (including options) by the U.S. Air Force to provide engineering and instrumentation in support of flight testing and training programs, and maintenance and operation of data collection and processing systems at the Edwards Flight Test Center and Utah Test and Training Range, plus associated remote locations.

- In January 1992, through a joint venture formed with Johnson Controls World Services, CSC won a $180 million, five-year contract to maintain and operate the Atlantic Undersea Test and Evaluation Center, a deep-water development and operation test facility that develops and tests Navy weapons systems.

- In December 1991, CSC was awarded a contract from the DoD to develop the Joint Computer-Aided Acquisition and Logistic Support (JCALS) system. The system will link 245 military sites across the U.S. with computers, LANs, and terminals connected through a wide-area network. JCALS is valued by DoD at $744 million over a 12-year period (including all options). CSC will subcontract portions of the project to various vendors.

- In November 1991, CSC was awarded a five-year, $48 million contract from the Department of State to provide software development and systems integration services in support of information and communications systems that link 30 U.S. bureaus and 200 international posts, including foreign embassies and consulates. Portions of the project will be subcontracted to Price Waterhouse, Systems Engineering and Management Associates, Analysas, and Dynacorp.

- In September 1991, CSC received a five-year, $68 million contract from the Defense Information Systems Agency to maintain and operate systems that support the command and control of military forces worldwide.

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- In September 1991, CSC received a three-year, $50 million contract from the Resolution Trust Corporation (RTC) to provide financial management services to thrift institutions that RTC is managing in the western U.S.

- In July 1991, CSC was awarded a subcontract from AT&T to perform a range of support and integration services for all U.S. Treasury organizations on a nationwide basis. CSC's revenues from the seven-year contract are expected to be approximately $140 million.

- In June 1991, CSC was awarded a five-year, $180 million contract (including options) to provide the Air Force Systems Command with management information systems and technical support for communications, computer system development, implementation and operations at 14 sites throughout the U.S.

CSC is a member of the AT&T team selected in December 1988 to replace the federal government's current telecommunications system. Known as FTS 2000, the program provides government agencies with an integrated system for voice, data, and video services. CSC is providing a billing system and other software services for FTS 2000. Both CSC's Systems Group and Partners unit are engaged in the FTS 2000 program.

U.S. Commercial Business:

CSC's products and services to domestic commercial clients are provided primarily through the Consulting Group and the Industry Services Group.

Consulting Group:

The Consulting Group provides management consulting, requirements analysis, system design, software development, system engineering and integration, communications system engineering, and facilities management for non-federal organizations worldwide. These activities are performed by the following units:

- CSC Index, Inc., based in Cambridge (MA) with 440 employees, is an international management consulting firm that assists corporations in their operating and financial performance.

- CSC Partners Inc. (formerly Computer Partners, Inc.) is a wholly owned subsidiary based in Waltham (MA) with 1,400 employees. The operations of CSC's Cleveland Consulting unit have been merged into CSC Partners.

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- CSC Intelicom Inc., based in Bethesda (MD) with 225 employees, specializes in products and services to telecommunications firms.

CSC Index focuses on three main disciplines: business strategy and operations; information technology; and change management.

- Business strategy and operations includes:

  - Formulating business strategies
  - Redesigning management and operational processes to achieve goals
  - Developing new approaches for working with suppliers and customers to improve speed and service

- Information technology consulting includes:

  - Identifying opportunities where information technology can enable new strategic initiatives to be taken
  - Developing approaches for the competitive application of information technology

- Change management consulting includes:

  - Assessing and developing human resources to meet business needs
  - Building a clear understanding of and commitment to required business changes
  - Creating and implementing new structures for the systems organization

- Index works primarily for the Fortune 500 manufacturing and service companies in the U.S. and the Financial Times 500 in Europe. The firm has assisted 19 of the 25 largest U.S. corporations.

- In addition to consulting, Index conducts executive education programs and corporate-sponsored research for more than 200 major companies.

CSC Partners provides consulting services to Fortune 1000 corporations and other large users of information systems technology. The former Communications and Integration Services Division of CSC was merged into CSC Partners during fiscal 1991.

- The firm specializes in information systems consulting, systems integration, and the design, building, and integration of information systems.

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- Services include information system planning; assisting companies in becoming more effective at systems development; developing IS and process quality programs; reviewing "out of control" projects; data base reviews; data modeling; project management; technology architecture; requirements definition; and professional services.

- The unit specializes in the manufacturing, distribution, financial services, energy/utilities, retail, publishing, and communications industries. The firm also provides technical, project management, and quality improvement education and training.

- CSC has had a continuous contractual relationship with AT&T for over 20 years.

- For U.S. Sprint, CSC is developing a system that automates service requests for consumers and businesses.

- CSC Partners' Minneapolis (MN) office is an IBM Business Partner for midrange systems.

CSC Intelicom provides applications software products and associated support services to the regional Bell operating companies, major independents, and interexchange carriers in North America and Europe.

- As a result of the acquisition of EPC International in May 1992, CSC also markets ISIS™, a billing and administrative support system for the wireless communications market, including cellular, GSM cellular, PCNs, and paging applications. ISIS runs on a range of systems, from PCs to mainframes.

Industry Services Group:

The Industry Services Group serves vertical markets with outsourcing and industry-specific services, principally directed at the insurance, health care, and consumer finance industries through seven divisions.

The Health and Administrative Services Division provides large-scale medical claims processing, systems operations, and related services for state and federal agencies.

- In August 1991, CSC was selected by the California Department of Insurance to design and operate systems and provide full administrative support for the state's Residential Earthquake Recovery Fund. The five-and-a-half-year outsourcing contract is valued at $66.3 million.

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- In June 1991, CSC was awarded a $149 million contract with the New York State Department of Social Services to act as fiscal agent for the state's Medicaid program. The contract continues work the company has performed since 1986.

- The division also processes medical claims from coal miners for the U.S. Department of Labor's black-lung program (a four-year contract was awarded to CSC in June 1989) and acts as servicing agent for the Federal Emergency Management Agency's (FEMA) National Flood Insurance Program.

CSC Logic, Inc., acquired in February 1990, provides systems operations, processing services, and applications software products for the administration of life and disability insurance for credit loans and mortgages, collateral protection insurance, and insurance for automobile manufacturers' warranties.

- The majority of CSC Logic's business is from full administration (systems operations) services, followed by processing services and software licensing. CSC Logic's CALS-II software is available for IBM and compatible mainframes and microcomputers and through CSC Logic's data center in Dallas.

- CSC Logic currently has approximately 100 clients, including insurance companies, financial institutions, and financial subsidiaries of automobile manufacturers.

CSC Healthcare Systems, Inc. provides turnkey systems, applications software, and associated support services to managed health care companies.

- ComCare is a Prime-based turnkey system for health maintenance organizations, preferred provider organizations, third-party administrators, and traditional indemnity carriers. ComCare includes modules for membership and billing, claims processing, utilization review, finance and accounting, and ancillary clinical functions. There are over 200 systems installed in 30 states.

- The division also provides IBM AS/400 and 3090-based applications software and turnkey systems for medical groups, managed health care organizations, and private practices nationwide.

  - The products support various medical office functions, including utilization management, benefits coordination, claims adjudication, premium and fee-for-service billing, membership, and general financial functions.

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- The products are installed in over 800 physicians' offices and at more than 60 health maintenance organizations (HMOs).

CSC Credit Services is a major supplier of consumer credit reports and account management services to thousands of credit grantors nationwide.

- As the result of an agreement formed with Equifax during 1988, credit report processing is furnished through Equifax's credit operations.

  - CSC has converted its more than 110 million consumer credit files to Equifax's computer system to create a joint national consumer credit file from which both companies can sell reports from each other's files to credit grantors, with Equifax performing the processing. This joint credit file provides nationwide credit grantors with a single source of credit information, instead of having to deal with multiple sources on a local or regional basis.

  - CSC Credit Services continues to own its credit files and receives all revenues from the sale of the credit information they contain. CSC pays Equifax a processing fee for each report supplied to a credit grantor.

- CSC continues to own and operate 31 credit bureaus. CSC Credit Services also owns 31 collection agencies and provides all processing services for the collection agencies.

- CSC Enterprises, formed in December 1990, is a general partnership with CSC, affiliates of Equifax, and Merel Corporation that operates CSC's credit services operations and carries out other business strategies through acquisition and investments.

CSC TACS Division provides income tax return processing services to professional tax preparers located in 15 western and midwestern states. Services are provided on a batch basis from a data center in Los Angeles, with direct access available via communications links.

The Marketing Division is responsible for marketing CSC's outsourcing resources in the commercial marketplace.

Through the Technology Management Division (TMD), CSC provides a range of outsourcing services and professional services in support of applications development and systems integration.

- In September 1991, CSC and General Dynamics Corporation formed a 10-year agreement under which CSC will provide systems

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operations services to General Dynamics' aerospace and defense units.

- CSC paid General Dynamics approximately $190 million for facilities, equipment, software, and services.

- General Dynamics has data centers in Norwich (CT), Fort Worth (TX), and San Diego (CA), and another 28 service sites around the country. These facilities and approximately 2,500 employees of General Dynamics Data Systems Division joined CSC.

· In April 1992, CSC CompuSource was awarded a ten-year systems operations contract with WCI Steel, Inc. of Warren (OH). The agreement--estimated to bring CSC revenues of $64 million over the life of the contract--calls for CSC to take over leases valued at about $2.5 million for all hardware used in WCI Steel's facility and 51 WCI employees.

International Business:

CSC's European operations provide consulting, software development, and systems integration services to national and transnational clients, primarily in Belgium, France, Germany, the Netherlands, and the U.K. Contract examples include the following:

· A two-year, $23 million Logistics Information Technology Strategy contract with the Royal Air Force to define the requirements for a modernized logistics system

· In Poland, CSC is providing a strategic analysis of the information needs for the municipal council of one of Poland's largest cities; developing a PC-based distribution system for the railway; and conducting a strategic study for a textile manufacturer and a feasibility study on the restructuring of a chemical engineering company.

· Re-engineering key business processes and developing a customer-based information system for a Belgian savings bank

· Developing administrative and security systems for the Kuwait Ministry of the Interior

· Management of all computer services for the Mersey Regional Health Authority in England under a $16.2 million facilities management contract

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- The design and development of a new generation of customer-based applications supporting the lending, insurance, and brokerage operations of the Bradford & Bingley Building Society (U.K.)

Industry Markets

A three-year summary of source of revenue by industry follows:

CSC
SOURCE OF REVENUE SUMMARY
($ millions)

	FISCAL YEAR					
	4/3/92		3/29/91		3/30/90	
ITEM	REVENUE $	PERCENT OF TOTAL	REVENUE $	PERCENT OF TOTAL	REVENUE $	PERCENT OF TOTAL
Federal Government						
- Department of Defense	$620.2	29%	$556.1	32%	$531.7	35%
- NASA	268.2	13%	243.3	14%	234.0	16%
- Civil Agencies	323.8	15%	278.1	16%	227.2	15%
Subtotal	$1212.2	57%	$1,077.5	62%	$992.9	66%
Commercial (a)	$689.6	33%	$451.8	26%	$360.2	24%
International (b)	$211.6	10%	$208.5	12%	$147.3	10%
TOTAL	**$2,113.4**	**100%**	**$1,737.8**	**100%**	**$1,500.4**	**100%**

(a) Includes state and local government revenue of about $37 million, $41 million, and $43 million in fiscal 1992, 1991, and 1990, respectively.

(b) Includes foreign revenue of U.S.-based operations.

Commercial revenue is derived from Fortune 500 companies in manufacturing, insurance, banking and finance, telecommunications, and utilities; and the retail, wholesale/distribution, medical, and services industries.

International revenue is derived from foreign governments, financial institutions, transportation companies, and manufacturers.

Geographic Markets

CSC's revenue and operating income by geographic region for the last three years has been as follows ($ millions):

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CSC
GEOGRAPHIC SOURCE OF REVENUE SUMMARY
($ millions)

	FISCAL YEAR					
	4/3/92		3/29/91		3/30/90	
ITEM	REVENUE $	PERCENT OF TOTAL	REVENUE $	PERCENT OF TOTAL	REVENUE $	PERCENT OF TOTAL
Revenue						
- U.S.	$1,908	90%	$1,537	88%	$1,354	90%
- International (a)	205	10%	201	12%	146	10%
	$2,113	100%	$1,738	100%	$1,500	100%
Operating income (loss)						
- U.S.	$164	109%	$123	95%	$115	98%
- International (a)	(14)	(9%)	7	5%	2	2%
	$150	100%	$130	100%	$117	100%

(a) Does not include foreign operations from U.S.-based entities.

CSC maintains offices in more than 300 locations throughout the U.S. Operations in the U.K., Belgium, France, Germany, the Netherlands, and Poland are through subsidiary companies.

Computer Hardware

Data centers operated by CSC include the following:

- The Technology Management Division operates three data centers in San Diego, Ft. Worth, and Norwich that operate numerous computer systems, including the following:
  - IBM 3090, 3084, 3081, 4361, 4381, 9221
  - Amdahl 5990 5995
  - Cray XMP-28
  - CYBER 180-855
  - Convex C210
  - DEC, IBM, HP, NCR, Harris, Tandem, Stratus, and other midrange systems
  - Sun, HP, DEC, HP/Apollo, and other workstations
- CSC Credit Services' data center in Houston uses IBM 4381, DEC VAX 8650, and DEC VAX-II/785 systems.
- The Health and Administrative Services Division has an Amdahl 5870 installed in Lanham (MD) for claims processing and related insurance functions.

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- CSC TACS has an IBM 4081 installed in Los Angeles.
- CSC Logic, Inc. has an IBM 3090-200E, MVS/ESA installed in Dallas.
- In support of its research and development efforts in software engineering, supercomputing, and other fields, CSC's Systems Group at Falls Church (VA) operates several laboratories that evaluate equipment lent by manufacturers. Company-owned equipment at this location includes a Relational 1000 and a DEC MicroVAX II.

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COMPUTER SCIENCES CORPORATION
2100 East Grand Avenue
El Segundo, CA 90245
(213) 615-0311

William R. Hoover, Chairman and President
Public Corporation, NYSE, PSE
Total Employees: 23,000 (6/91)
Total Revenue, Fiscal Year End 3/29/91: $1,737,791,000

The Company

Computer Sciences Corporation (CSC), founded in 1959, is the largest independent professional services company in the industry. Serving government and commercial clients, CSC provides management consulting in information technology, requirements analysis, software development, systems engineering and integration, turnkey computer-communications systems, and systems operations (facilities management) services. The company also provides industry-specific proprietary products and services for credit reporting, claims processing, health maintenance organizations, and income tax preparation.

CSC management has set the objective of becoming one of the top two or three companies in the commercial markets for consulting, systems integration, and related professional services in the U.S. and Europe.

- Its strategies are to maintain its dominant position in the U.S. federal marketplace (which contributed 62% of fiscal 1991 revenue), while expanding its market share in non-federal markets through internal growth and acquisitions.

- To position itself for a leading role in the commercial marketplace, CSC has expanded its consulting and implementation capabilities, established a branch-office structure, begun the transfer of technology gained in large federal system projects to its commercial organization, and earmarked $500 million for investment in acquisitions.

- In December 1990 CSC and Equifax Inc. formed a general partnership called CSC Enterprises. CSC contributed all of its credit reporting and collection assets and $1 million in cash in exchange for 97.2% ownership. Equifax contributed $10 million in cash and owns the remaining 2.8%. The partnership was formed to be responsible for CSC's credit services operations and to carry out other business strategies through acquisition and investment.

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- The partnership follows an August 1988 agreement with Equifax, under which the credit files of the two companies were combined.

Fiscal 1991 revenue reached $1.74 billion, a 16% increase over fiscal 1990 revenue of $1.5 billion. Net income for fiscal 1991 was $65.0 million, compared to $65.5 million for fiscal 1990. In the five-year summary that follows, financials include results of businesses acquired from their respective dates of acquisition as well as the results of businesses sold up to the date of their divestiture:

COMPUTER SCIENCES CORPORATION
FIVE-YEAR FINANCIAL SUMMARY
($ millions, except per share data)

	FISCAL YEAR					
ITEM	3/29/91	3/30/90	3/31/89	4/1/88	4/3/87	CAGR
Revenue	$1,737.8	$1,500.4	$1,304.4	$1,152.4	$1,031.5	14%
· Percent increase from previous year	16%	15%	13%	12%	23%	
Income before taxes	$102.5	$103.2	$84.5	$71.4	$58.1	15%
· Percent increase (decrease) from previous year	(1%)	22%	18%	23%	36%	
Net income	$65.0 (a)	$65.5 (a)	$52.5	$43.5	$32.2	19%
· Percent increase (decrease) from previous year	(1%)	25%	21%	35%	35%	
Earnings per share	$4.02	$4.07 (a)	$3.28 (a)	$2.73	$2.08	18%
· Percent increase (decrease) from previous year	(1%)	24%	20%	31%	23%	

(a) Includes net non-recurring gains of $3.4 million in fiscal 1991 and $11.7 million in fiscal 1990. The fiscal 1991 gain is the result of the partnership CSC formed with Equifax, net of $4.9 million in phase-down costs on certain operations. The fiscal 1990 amount related to a gain of $19.6 million on the sale of CSC's 40% ownership in Infonet, less costs associated with the phase-down of certain international operations.

Revenue increases for fiscal 1991 were broadly based across all three of CSC's major operating groups. Internal growth from existing operations provided nearly 70% of the revenue increase, while newly acquired operations provided the remainder.

- Excluding the effect of the net non-recurring gains previously discussed, fiscal 1991 and 1990 earnings increased by 8% and 13%, respectively.

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Acquisitions made by CSC during 1991 include the following:

- In October 1991, CSC completed the acquisition of Intelicom Solutions Corporation (formerly Telic Corporation) of Bethesda (MD). Terms of the cash purchase were not disclosed.
  - Intelicom, with annual revenues of approximately $30 million, is the largest independent provider of software to the telecommunications industry. Its customer base includes AT&T, GTE, and the seven regional Bell operating companies.
  - Intelicom will operate as a business unit of the Consulting Group.
- In July 1991, CSC acquired CompuSource of North Carolina. Terms of the purchase were not disclosed.
  - CompuSource, with annual revenues of $20 million, provides systems operations and processing services to over 300 clients, including commercial insurance and financial services firms.
  - CompuSource operates through Research Triangle Time Sharing Corporation and Provident Recovery Systems Inc. and maintains data centers in North Carolina, Massachusetts, Pennsylvania, and Ohio.
  - CompuSource now operates as part of the Health and Administrative Services Division within the Industry Services Group.
- In May 1991, CSC acquired Butler Cox, a London-based information technology management consulting firm with annual revenues of approximately $18 million.
  - CSC has agreed to purchase all of the firm's shares (approximately 5.3 million shares outstanding) through a public tender offer at a per-share price of 2.45 British pounds (approximately $4.21).
  - The operations of Butler Cox have been merged into CSC Index.
- In January 1991, CSC (through Cleveland Consulting Associates) acquired Paragon Consulting Group, a Dallas-based firm specializing in operations management consulting services to food and consumer products manufacturers.

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- Paragon, with annual revenue of $1.5 million in 1990, has performed projects for such clients as Frito-Lay, Coca-Cola, Pizza Hut, and Taylor Instruments.

- The operations of Faragon have been merged into Cleveland Consulting Associates.

- In January 1991, CSC acquired Moria Informatique, a Paris-based systems integration and software firm.

- Moria, with over 400 employees and 1990 revenue of about $38 million (U.S.), provides software and services to large companies in manufacturing, banking, insurance, transportation, and telecommunications. The firm also provides micro and minicomputer-based information systems targeted to manufacturers of clothing, fashion products, and shoes.

- Moria now operates as CSC Moria.

- In January 1991, CSC acquired Analytics Inc., a private firm specializing in information security and communications systems.

- Analytics, with 350 employees and 1990 revenue of $28 million, has offices in Northern Virginia, Columbia (MD), Fort Monmouth (NJ), and Willow Grove (PA).

- Analytics has been merged into CSC's Systems Engineering Division.

CSC's organization structure is shown in the exhibit. The company currently provides its products and services through three operating groups:

- The Systems Group, headquartered in Falls Church (VA), is the company's primary resource for computer and communications technology. The group has five divisions that primarily serve the U.S. government.

- The Consulting Group, headquartered in Cambridge (MA), is the counterpart of the Systems Group in the commercial marketplace.

- The Industry Services Group, headquartered in El Segundo (CA), serves vertical markets with outsourcing and industry-specific services, principally directed at the insurance, health care, and consumer finance industries.

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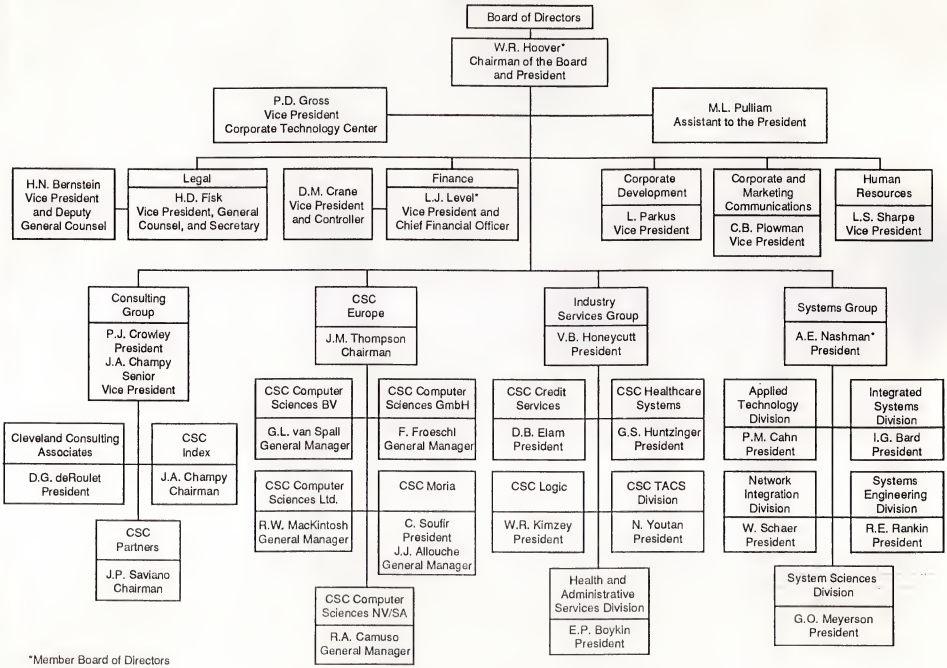
EXHIBIT

Computer Sciences Corporation



*Member Board of Directors

A three-year summary of source of revenue by operating group follows:

CSC SOURCES OF REVENUE
($ millions)

	FISCAL YEAR		
ITEM	3/29/91	3/30/90	3/31/89
Systems Group			
- Federal government	$1,029.9	$952.5	$863.9
- Commercial	12.2	12.5	9.6
- State & local government	0.6	0.7	3.9
- International	3.3	0.5	3.7
Subtotal	$1,046.0	$966.2	$881.1
Consulting Group			
- Federal government	$9.8	$9.9	$2.4
- Commercial	151.4	108.6	80.9
- State & local government	8.7	10.7	1.8
- International	201.0	146.8	58.7
Subtotal	$370.9	$276.0	$143.8
Industry Services			
- Federal government	$30.3	$30.4	$29.9
- Commercial	259.4	196.7	144.1
- State & local government	31.2	31.1	31.3
Subtotal	$320.9	$258.2	$205.3
Operations sold (a)			
- Federal government	--	--	$25.2
- Commercial	--	--	32.9
- State & local government	--	--	0.1
- International	--	--	16.0
Subtotal	--	--	$74.2
Total Revenue	**$1,737.8**	**$1,500.4**	**$1,304.4**

(a) Includes the results of CSC Compufact, which was sold in March 1989, and the results of INFONET through the first three quarters of fiscal 1989.

The Systems Group's fiscal 1991 revenue increased $80 million, or 8%, over fiscal 1990 levels, due principally to a substantial increase in federal contract awards. During fiscal 1991, the Systems Group won federal contract orders of $1.25 billion, more than twice the federal order volume of the prior year. The group contributed 60% of CSC's total revenue.

The Consulting Group contributed 21% to total fiscal 1991 revenue and reported the largest gains during the year. Revenue for the group rose $95 million, or 34%.

- European consulting revenues climbed 37% over the prior year, while U.S. revenue climbed 31%.

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- Newly acquired operations provided approximately two-thirds of fiscal 1991's European growth and approximately 40% of the U.S. growth.

The Industry Services Group's fiscal revenue increased $63 million, or 24% over fiscal 1990.

- Nearly three-quarters of the increase reflects continued expansion of services provided to the health care and insurance industries. This trend is expected to slow in fiscal 1992.

- The remainder of the fiscal 1991 increase primarily relates to the acquisition of Logic, Inc., which was first consolidated in the fourth quarter of fiscal 1990.

Revenue for the six months ending September 27, 1991 reached $923.8 million, a 12% increase over $827.4 million for the same period in 1990. Net income was $28.4 million, compared to $27.4 million for the same period a year ago.

- Federal revenue totaled $558.7 million, compared to $520.8 million for the same period last year.

- Revenues from commercial operations, including U.S. and Europe, totaled $335.2 million, compared to $306.6 million for the previous year.

- The continuing recessionary climate in Europe tempered CSC's international growth and had a significantly adverse impact on margins.

As of June 1991, CSC had approximately 23,000 employees. The company currently has approximately 23,300 employees, segmented as follows:

Systems Group	67%
Industry Services Group	17%
CSC Consulting	15%
Other	1%
	100%

Major competitors by primary service/product area include the following:

- Federal government professional services: TRW, Hughes Aircraft, IBM, PRC, Inc., General Electric, AT&T, Unisys, Boeing Computer Services, and Ford Aerospace & Communications Co.

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- Commercial professional services: Andersen Consulting, Electronic Data Systems (EDS), and IBM
- Medicaid claims processing: Blue Cross/Blue Shield and EDS
- Credit reporting service: TRW Information Services and TransUnion
- Health care systems: Jergovan and Blair, Inc.

Key Products and Services

CSC's $1.738 billion in fiscal 1991 revenue was derived approximately as follows:

PRODUCT/SERVICE	REVENUE ($ millions)	PERCENT OF TOTAL
Professional services (a)	$547	32%
Systems integration (b)	509	29%
Systems operations	469	27%
Processing/network services	161	9%
Turnkey systems	52	3%
TOTAL	$1,738	100%

(a) Includes $42 million in management consulting revenue.

(b) Includes $10 million in application software revenue.

Systems Group:

The Systems Group is the company's primary provider of technical services to the federal government. Services provided include systems engineering and integration, the development of custom-designed computer-based systems and communications systems, operational support of clients' technical activities, clients' computer facilities management, and turnkey system development.

The Systems Group consists of five units:

- The Integrated Systems Division, based in Moorestown (NJ), designs, implements, and integrates systems for office automation, digital imaging, and administrative and engineering support, and for military uses such as weapons control, logistics, wargaming, and command, control, and communications (C^3I).
- The System Sciences Division, headquartered in Calvert (MD), provides systems engineering, analysis, software development,

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and end-to-end integrated data systems and services primarily to aerospace clients such as NASA and the FAA.

- The Network Integration Division (formerly the Network Systems Division), headquartered in Falls Church (VA), provides network and systems integration to both government and industry. Specializing in networks, distributed systems, and network computing, the division provides a range of services, from architecture through operations and maintenance.

- The Systems Engineering Division (formerly the Special Projects Division), headquartered in Falls Church (VA), performs high-level technical management projects, known as systems engineering and technical assistance (SETA), for the government. The division also performs research and development in systems and software technologies, and special activities in signal processing, communications systems, and information processing.

- The Applied Technology Division, headquartered in Falls Church (VA), provides systems operations (facilities management) services, primarily for NASA; provides operations and maintenance services to aircraft and weapons test centers; and provides software development support to federal agencies. This division, CSC's largest business unit, has about 9,000 employees and $500 million in annual revenue.

Recent contract awards for the group include the following:

- In September 1991, CSC received a five-year, $68 million contract from the Defense Information Systems Agency to maintain and operate systems that support the command and control of military forces worldwide.

- In September 1991, CSC received a three-year contract from the Resolution Trust Corporation (RTC) to provide financial management services to thrift institutions that RTC is managing in the western U.S.

- In July 1991, CSC was awarded a subcontract from AT&T to perform a range of support and integration services for all U.S. Treasury organizations on a nationwide basis. CSC's revenues from the seven-year contract are expected to be approximately $140 million.

- In June 1991, CSC was awarded a five-year, $180 million contract (including options) to provide the Air Force Systems Command with management information systems and technical support for

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communications, computer system development, implementation and operations at 14 sites throughout the U.S.

- In December 1990, CSC was awarded a $120 million contract by the General Services Administration (GSA) for system development and software support services for business applications in the GSA's Pacific Zone. In August 1990, GSA selected CSC to provide similar services for scientific and engineering applications under a contract valued at $48 million.

- In October 1990, CSC won a recompete and significant expansion of work performed since 1977 from the Environmental Protection Agency (EPA) under a five-year contract valued at $347 million. CSC (with staff of over 1,600) provides a range of data processing, telecommunications, office automation, records management, data analysis, and development services for EPA's headquarters, 10 regional offices, 14 laboratories, and National Computer Center.

- In September 1990, CSC was awarded a three-year, $70 million contract by the Army Communications and Electronics Command (Fort Monmouth, NJ) to provide research and development support for command, control, and communications systems. Study areas include distributed processing, artificial intelligence, network performance, and simulation.

- In August 1990, CSC was awarded a ten-year, $48.8 million contract by the Treasury Department's Financial Management Service to modernize hardware and software systems that support cash management, payments, accounting, and other key functions of the agency.

CSC is a member of the AT&T team selected in December 1988 to replace the federal government's current telecommunications system. Known as FTS2000, the program provides government agencies with an integrated system for voice, data, and video services. CSC is providing a billing system and other software services for FTS2000. Both CSC's Systems Group and Partners unit are engaged in the FTS2000 program.

Consulting Group:

The Consulting Group provides management consulting, requirements analysis, system design, software development, system engineering and integration, communications systems engineering, and facilities management for non-federal organizations worldwide. These activities are performed by the following units:

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- CSC Index, Inc., based in Cambridge (MA), is an international management consulting firm that assists corporations in their operating and financial performance.

- CSC Partners Inc. (formerly Computer Partners, Inc.) is a wholly owned subsidiary based in Waltham (MA).

- Cleveland Consulting Associates, Inc., based in Cleveland (OH), specializes in logistics and operations management consulting.

- CSC Europe S.A., headquartered in London, manages CSC Consulting's activities in Belgium, France, Germany, the Netherlands, and the U.K. These activities include CSC N.V./S.A. (formerly CIG-Intersys) and CSC Inforem.

CSC Index focuses on three main disciplines: business strategy and operations; information technology; and change management.

- Business strategy and operations includes:

  - Formulating business strategies
  - Redesigning management and operational processes to achieve goals
  - Developing new approaches for working with suppliers and customers to improve speed and service

- Information technology consulting includes:

  - Identifying opportunities where information technology can enable new strategic initiatives to be taken
  - Developing approaches for the competitive application of information technology

- Change management consulting includes:

  - Assessing and developing human resources to meet business needs
  - Building a clear understanding of and commitment to required business changes
  - Creating and implementing new structures for the systems organization

- Index's fiscal 1991 revenue was about $60 million, a 50% increase over fiscal 1990 revenue.

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- Index works primarily for the Fortune 500 manufacturing and service companies in the U.S. and the Financial Times 500 in Europe. The firm has assisted 19 of the 25 largest U.S. corporations.

- In addition to consulting, Index conducts executive education programs and corporate-sponsored research for more than 200 major companies.

CSC Partners provides consulting services to Fortune 1000 corporations and other large users of information systems technology. The former Communications and Integration Services Division of CSC was merged into CSC Partners during fiscal 1991.

- The firm specializes in information systems consulting, systems integration, and the design, building, and integration of information systems.

- Services include information system planning; assisting companies in becoming more effective at systems development; developing IS and process quality programs; reviewing "out of control" projects; data base reviews; data modeling; project management; technology architecture; requirements definition; and professional services.

- CSC Partners' fiscal 1991 revenue approximated $120 million (including the results of the former Communications and Integration Services Division). This represents a 15% increase over combined fiscal 1990 revenue.

- The unit specializes in the manufacturing, distribution, financial services, energy/utilities, retail, publishing, and communications industries.

- The firm also provides technical, project management, and quality improvement education and training.

- CSC has had a continuous contractual relationship with AT&T for over 20 years.

- For U.S. Sprint, CSC is developing a system that automates service requests for consumers and businesses.

Cleveland Consulting counsels clients on strategies and effective management of all links in their supply chain. It serves more than 250 clients worldwide, including 25 of the 50 largest U.S. industrial companies.

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CSC's European operations provide consulting, software development, and systems integration services to national and transnational clients, primarily in Belgium, France, Germany, the Netherlands, and the U.K. Contract examples include:

- Developing administrative and security systems for the Kuwait Ministry of the Interior
- Management of all computer services for the Mersey Regional Health Authority in England under a $16.2 million facilities management contract
- The design and development of a new generation of customer-based applications supporting the lending, insurance, and brokerage operations of the Bradford & Bingley Building Society (U.K.)

In the area of commercial systems integration, CSC has the following alliances:

- In June 1990, CSC and Mitsui & Co. entered into an agreement to jointly market systems integration services to U.S. operations of Japanese companies.
- In January 1990, CSC signed a service alliance agreement with DEC to pursue systems integration business in the distribution and logistics marketplace, as well as opportunities within the telecommunications industry.
- CSC Partners' Minneapolis (MN) office is an IBM Business Partner for midrange systems.

Industry Services Group:

The Industry Services Group serves vertical markets with outsourcing and industry-specific services, principally directed at the insurance, health care, and consumer finance industries through the following divisions:

The Health and Administrative Services Division provides large-scale medical claims processing, systems operations, and related services for state and federal agencies.

- In August 1991, CSC was selected by the California Department of Insurance to design and operate systems and provide full administrative support for the state's Residential Earthquake Recovery Fund. The five-and-a-half-year outsourcing contract is valued at $66.3 million.

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- In June 1991, CSC was awarded a $149 million contract with the New York State Department of Social Services to act as fiscal agent for the state's Medicaid program. The contract continues work the company has performed since 1986.

- The division also processes medical claims from coal miners for the U.S. Department of Labor's black-lung program (a four-year contract was awarded to CSC in June 1989), acts as servicing agent for the Federal Emergency Management Agency's (FEMA) National Flood Insurance Program, and is automobile insurance servicing carrier for the New Jersey Market Transition Facility (MTF).

CSC Logic, Inc., acquired in February 1990, provides systems operations, processing services, and application software products for the administration of life and disability insurance for credit loans and mortgages, collateral protection insurance, and insurance for automobile manufacturers' warranties.

- The majority of CSC Logic's business is from full administration (systems operations) services, followed by processing services and software licensing. CSC Logic's CALS-II software is available for IBM and compatible mainframes and microcomputers and through CSC Logic's data center in Dallas.

- CSC Logic currently has approximately 100 clients, including insurance companies, financial institutions, and financial subsidiaries of automobile manufacturers.

CSC Healthcare Systems, Inc. provides turnkey systems, application software, and associated support services to managed health care companies.

- ComCare is a Prime-based turnkey system for health maintenance organizations, preferred provider organizations, third-party administrators, and traditional indemnity carriers. ComCare includes modules for membership and billing, claims processing, utilization review, finance and accounting, and ancillary clinical functions. There are over 200 systems installed in 30 states.

- The division also provides IBM AS/400 and 3090-based application software and turnkey systems for medical groups, managed health care organizations, and private practices nationwide.

  - The products support various medical office functions, including utilization management, benefits coordination,

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claims adjudication, premium and fee-for-service billing, membership, and general financial functions.

- The products are installed in over 800 physicians' offices and at more than 60 health maintenance organizations (HMOs).

CSC Credit Services generated an estimated $120 million in revenue during fiscal 1991, compared to $115 million in revenue during fiscal 1990.

- As the result of an agreement formed with Equifax during 1988, credit reporting processing is furnished through Equifax's credit operations.

  - CSC has converted its more than 110 million consumer credit files to Equifax's computer system to create a joint national consumer credit file from which both companies can sell reports from each other's files to credit grantors, with Equifax performing the processing. This joint credit file provides nationwide credit grantors with a single source of credit information, instead of having to deal with multiple sources on a local or regional basis.

  - CSC Credit Services continues to own its credit files and receives all revenues from the sale of the credit information they contain. CSC pays Equifax a processing fee for each report supplied to a credit grantor.

- CSC continues to own and operate 31 credit bureaus. CSC Credit Services also owns 31 collection agencies and provides all processing services for the collection agencies.

CSC TACS Division provides income tax return processing services to professional tax preparers located in 15 western and midwestern states.

- Services are provided on a batch basis from a data center in Los Angeles with direct access available via communications links.

In September 1991, CSC and General Dynamics Corporation formed a 10-year agreement under which CSC will provide systems operations services to General Dynamics' aerospace and defense units.

- CSC will pay General Dynamics approximately $200 million for facilities, equipment, software, and services.

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- General Dynamics has data centers in Norwich (CT), Fort Worth (TX), and San Diego (CA), and another 28 service sites around the country. These facilities and approximately 2,600 employees of General Dynamics Data Systems Division will transfer to CSC.

- CSC will form a new division within the Industry Services Group. It will contribute about $350 million to CSC's revenue in its first full year of operation.

Industry Markets

A three-year summary of source of revenue by industry follows ($ millions):

	FISCAL YEAR					
	3/29/91		3/30/90		3/31/89	
ITEM	REVENUE $	PERCENT OF TOTAL	REVENUE $	PERCENT OF TOTAL	REVENUE $	PERCENT OF TOTAL
Federal Government						
- Department of Defense	$561.5	32%	$531.7	35%	$508.7	39%
- NASA	250.2	14%	233.9	16%	221.7	17%
- Civil Agencies	258.3	16%	227.2	15%	221.9	17%
Subtotal	$1,070.0	62%	$992.8	66%	$952.3	73%
Commercial	$423.0	24%	$317.8	21%	$247.8	19%
State & Local Government	$40.5	2%	$42.5	3%	$39.1	3%
International	$204.3	12%	$147.3	10%	$65.2	5%
TOTAL	**$1,737.8**	**100%**	**$1,500.4**	**100%**	$1,304.4	100%

For fiscal 1991, approximately 62% of revenue was derived from the federal government, 14% from banking/finance/insurance, 9% from manufacturing/distribution, 2% from state and local government, and 13% from other sources, including transportation, utilities, communications, services, and education.

Commercial revenue is derived from Fortune 500 companies in manufacturing, insurance, and banking and finance; telephone companies; and the retail, wholesale/distribution, medical, and services (primarily accountants) industries.

International revenue is derived from foreign governments, financial institutions, transportation companies, and manufacturers.

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Geographic Markets

CSC's revenue and operating income by geographic region for the last three years has been as follows ($ millions):

	FISCAL YEAR					
	3/29/91		3/30/90		3/31/89	
ITEM	REVENUE $	PERCENT OF TOTAL	REVENUE $	PERCENT OF TOTAL	REVENUE $	PERCENT OF TOTAL
Revenue						
- U.S.	$1,536.8	88%	$1,353.6	90%	$1,226.0	94%
- International	201.0	12%	146.8	10%	78.4	6%
	$1,737.8	100%	$1,500.4	100%	$1,304.4	100%
Operating income						
- U.S.	$123.4	95%	$114.6	98%	$105.1	98%
- International	6.6	5%	2.3	2%	2.2	2%
	$130.0	100%	$116.9	100%	$107.3	100%

CSC maintains offices in more than 200 locations throughout the U.S. Operations in the U.K., Belgium, Germany, and the Netherlands are through subsidiary companies.

Computer Hardware

Data centers operated by CSC include the following:

- CSC Credit Services' data center in Houston uses IBM 4381, DEC VAX 8650, and DEC VAX-II/785 systems.
- The Health and Administrative Services Division has an Amdahl 5870 installed in Lanham (MD) for claims processing and related insurance functions.
- CSC TACS has an IBM 4081 installed in Los Angeles.
- CSC Logic, Inc. has an IBM 3090-200E, MVS/ESA, installed in Dallas.
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William R. Hoover, Chairman and President
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3/31/90: $1,500,443,000

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- To position itself for a leading role in the commercial marketplace, CSC has expanded its consulting and implementation capabilities, established a branch-office structure, begun the transfer of technology gained in large federal system projects to its commercial organization, and earmarked $500 million for investment in acquisitions.

Fiscal 1990 revenue reached $1.5 billion, a 15% increase over fiscal 1986 revenue of $1.3 billion. Net income for fiscal 1990 was $65.5 million, a 25% increase over $52.5 million for fiscal 1989. In the five-year summary that follows, financials include results of businesses acquired from their respective dates of acquisition as well as the results of businesses sold up to the date of their divestiture:

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COMPUTER SCIENCES CORPORATION
FIVE-YEAR FINANCIAL SUMMARY
($ millions, except per share data)

	FISCAL YEAR					
ITEM	3/30/90	3/31/89	4/1/88	4/3/87	3/28/86	CAGR
Revenue	$1,500.4	$1,304.4	$1,152.4	$1,031.5	$838.6	16%
• Percent increase from previous year	15%	13%	12%	23%	16%	
Income before taxes	$103.2	$84.5	$71.4	$58.1	$42.8	25%
• Percent increase from previous year	22%	18%	23%	36%	4%	
Net income	$65.5 (a)	$52.5 (a)	$43.5	$32.2	$23.9	29%
• Percent increase (decrease) from previous year	25%	21%	35%	35%	(14%)	
Earnings per share	$4.07 (a)	$3.28 (a)	$2.73	$2.08	$1.69	25%
• Percent increase (decrease) from previous year	24%	20%	31%	23%	(16%)	

(a) Includes net gains of $7.2 million ($0.45 per share) and $1.1 million ($0.07 per share) for fiscal 1990 and 1989, respectively, from the sale of INFONET and CSC Compufact

During fiscal 1990, CSC invested $77 million in the acquisition of six companies which are expected to produce approximately $183 million in revenue and a strong contribution to operating profit during fiscal 1991.

- In February 1990, CSC acquired Logic, Inc., a provider of systems operations, processing, and application software related to the administration of insurance for loans, mortgages, collateral, and warranties to insurance companies and financial institutions.
  - Logic, headquartered in Dallas, had approximately 250 employees at the time of acquisition and revenues of about $17 million for the year ending November 30, 1989.
  - Logic now operates within CSC's Industry Services Group.
- In November 1989, CSC acquired Cleveland Consulting Associates, Inc., a wholly owned subsidiary of Saatchi & Saatchi PLC providing logistics and operations management consulting services worldwide.

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- Cleveland Consulting, headquartered in Cleveland (OH), had approximately 130 employees at the time of the acquisition and annualized revenues of $13 million.

- The company now operates as a subsidiary of CSC within CSC Consulting.

- In November 1989, CSC also acquired LPS, Inc., a Minneapolis-based professional services firm specializing in system development services for commercial clients.

  - LPS had approximately 140 employees at the time of the acquisition and annualized revenues of about $9 million.

  - The operations of LPS have been merged into the CSC Partners unit within CSC Consulting.

- In November 1989, CSC acquired the remaining 91% interest in Inforem Limited, a British consulting firm with clients in the financial services, retail, and leisure industries.

  - Inforem, based in metropolitan London, had annualized revenues of about $20 million.

  - The operations of Inforem have been merged into CSC's European operations.

- In June 1989, CSC completed the acquisition of CIG-Intersys Group and its subsidiaries from Societe Generale de Belgique, S.A. and Generale de Banque, S.A. Terms of the cash transaction were not disclosed.

  - Based in Brussels, CIG is the largest information services company in Belgium, with 1988 revenues of approximately $85 million, exclusive of an electronic banking network service not included in the acquisition. CIG also operates in France and the Netherlands, and holds minority ownerships of firms in Argentina and West Germany.

  - CIG, with approximately 1,000 employees at the time of the acquisition, provides consulting, systems integration, software, computer facilities management, and related services. Its major markets include the banking, insurance, transportation, and distribution industries.

  - The acquisition strengthens CSC's European market position and adds specific European vertical market knowledge.

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- CIG's operations have been merged into CSC's Belgian operations, now known as CSC N.V./S.A.

- In April 1989, CSC acquired Seako, Inc. of Birmingham (AL). Terms of the acquisition were not disclosed.

  - Seako specializes in IBM-based software products for medical groups, managed health care organizations and private practices and is a value-added reseller of IBM equipment.

  - Seako had annual revenues of approximately $7 million.

  - Effective October 1, 1990, the operations of Seako have been merged with CSC Comtec to form CSC Healthcare Systems, a division within CSC's Industry Services Group.

In January 1990, CSC sold its remaining 30% interest in INFONET to MCI Communications Corp. and nine other organizations for $41 million. Established in 1970, INFONET operates a worldwide communications network, providing computer and communications services to commercial companies and government agencies.

CSC's organization structure is shown in the exhibit. The company currently provides its products and services through three operating groups:

- The Systems Group, headquartered in Falls Church (VA), is the company's primary resource for computer and communications technology. The group has five divisions that primarily serve the U.S. government.

- CSC Consulting, headquartered in Cambridge (MA), is the counterpart of the Systems Group in the commercial marketplace.

- The Industry Services Group, headquartered in El Segundo (CA), provides specialized services to the casualty/health insurance markets, credit grantors, and to CPAs for income tax return processing.

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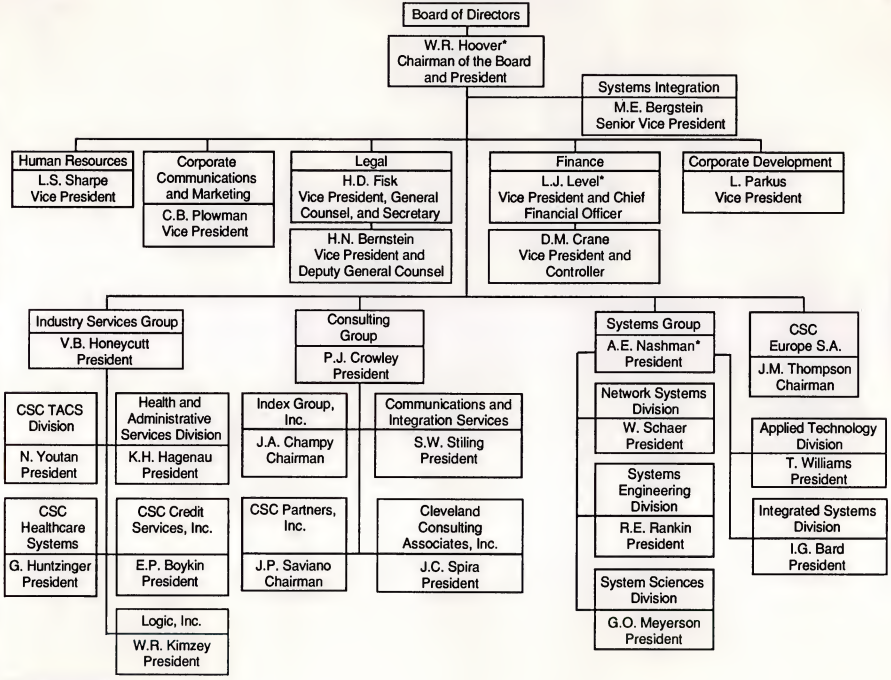
EXH

Computer Scien[illegible] Corporation



*Member Board of Directors

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A three-year summary of source of revenue by operating group follows:

CSC SOURCES OF REVENUE
($ millions)

	FISCAL YEAR		
ITEM	3/30/90	3/31/89	4/1/88
Systems Group			
- Federal government	$952.5	$863.9	$694.2
- Commercial	12.5	9.6	14.5
- State & local government	0.7	3.9	4.7
- International	0.5	3.7	12.6
Subtotal	$966.2	$881.1	$726.0
Consulting Group			
- Federal government	$9.9	$2.4	--
- Commercial	108.6	80.9	51.7
- State & local government	10.7	1.8	3.8
- International	146.8	58.7	60.9
Subtotal	$276.0	$143.8	$116.4
Industry Services			
- Federal government	$30.4	$29.9	$33.0
- Commercial	196.7	144.1	133.2
- State & local government	31.1	31.3	51.6
Subtotal	$258.2	$205.3	$217.8
Operations sold (a)			
- Federal government	--	$25.2	$39.3
- Commercial	--	32.9	34.8
- State & local government	--	0.1	0.2
- International	--	16.0	17.9
Subtotal	--	$74.2	$92.2
Total Revenue	**$1,500.4**	**$1,304.4**	**$1.152.4**

(a) Includes the results of CSC Compufact, which was sold in March 1989, and the results of INFONET through the first three quarters of fiscal 1989.

The Systems Group's fiscal 1990 revenue increased $85 million, or 10%, over fiscal 1989 levels, reflecting the awards of several large contracts during fiscal 1989. The group contributed nearly 65% to CSC's total revenue.

- CSC continued to win well over half of the federal contracts it bid on; however, the sizes of the contracts won were not as large as those that had contributed to the 21% growth of fiscal 1989 revenues over 1988. This resulted in a flattening of Systems Group revenue in the second half of fiscal 1990 and the first half of fiscal 1991, compared with year-earlier periods.

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The Consulting Group contributed 18% to total fiscal 1990 revenue and reported the largest gains during the year. Revenue for the group rose $132 million, or 92%.

- Approximately two-thirds of the increase was attributed to newly acquired companies, primarily CIG Intersys. The remainder of the increase reflects the continued expansion of domestic operations and the first full year of operations of Index Group (acquired in September 1988).

The Industry Services Group's fiscal revenue increased $53 million, or 26% over fiscal 1989. Approximately two-thirds of the increase came from expansion of services provided to the healthcare and insurance industries, while most of the remainder of the increase came from acquisitions. This group contributed 17% to CSC's total fiscal 1990 revenue.

Revenue for the six months ending September 28, 1990 reached $827.4 million, a 16% increase over $713.8 million. Net income for the period rose 3%, from $26.7 million to $27.4 million.

- Systems Group revenue increased only 4% over the same period a year ago. CSC did experience a resurgence in federal contract awards during the period, which should produce faster growth for the group during the remainder of the year.

- Consulting revenue rose 58% and Industry Services revenue rose 26% over the same period last year.

As of June 1990, CSC had approximately 21,000 employees segmented as follows:

Systems Group	67%
Industry Services Group	17%
CSC Consulting	15%
Other	1%
	100%

Major competitors by primary service/product area, include the following:

- Federal government professional services: TRW, Hughes Aircraft, IBM, Planning Research Corporation (PRC), General Electric, AT&T, Unisys, Boeing Computer Services, and Ford Aerospace & Communications Co.

- Commercial professional services: Andersen Consulting, Electronic Data Systems (EDS), and IBM.

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- Medicaid claims processing: Blue Cross/Blue Shield and EDS
- Credit reporting service: TRW Information Services and TransUnion
- Health care systems: Jergovan and Blair, Inc.

Key Products and Services

INPUT estimates CSC's $1.35 billion in fiscal 1990 U.S. information services revenue was derived approximately as follows:

PRODUCT/SERVICE	U.S. REVENUE ($ millions)	PERCENT OF TOTAL
Systems integration	$430	32%
Professional services	425	31%
Systems operations	325	24%
Network services	115	9%
Processing services	30	2%
Turnkey systems	15	1%
Application software	10	--
TOTAL	**$1,350**	**100%**

CSC's international revenue was derived primarily from systems integration and professional services.

Systems Group:

The Systems Group is the company's primary provider of technical services to the federal government. Services provided include systems engineering and integration, the development of custom-designed computer-based systems and communications systems, operational support of clients' technical activities, clients' computer facilities management, and turnkey system development.

The Systems Group consists of five units:

- The Integrated Systems Division, based in Moorestown (NJ), designs, implements, and integrates systems for office automation, digital imaging, and administrative and engineering support, and for military uses such as weapons control, logistics, wargaming, and command, control, and communications (C^3I).
- The System Sciences Division, headquartered in Calvert (MD), provides systems engineering, analysis, software development,

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and end-to-end integrated data systems and services primarily to aerospace clients such as NASA and the FAA.

- The Network Systems Division, headquartered in Falls Church (VA), designs and builds communications networks and real-time telemetry systems for military and civil agencies of the government.

- The Systems Engineering Division (formerly the Special Projects Division), headquartered in Falls Church (VA), performs high-level technical management projects, known as systems engineering and technical assistance (SETA), for the government. The division also performs research and development in systems and software technologies, and special activities in signal processing, communications systems, and information processing.

- The Applied Technology Division, headquartered in Falls Church (VA), provides facilities management services, primarily for NASA; provides operations and maintenance services to aircraft and weapons test centers; and provides software development support to federal agencies.

Recent contract awards for the group include the following:

- In October 1990, CSC won a recompete and significant expansion of work performed since 1977 from the Environmental Protection Agency (EPA) under a five-year contract valued at $347 million. CSC (with staff of over 1,600) provides a range of data processing, telecommunications, office automation, records management, data analysis, and development services for EPA's headquarters, 10 regional offices, 14 laboratories, and National Computer Center.

- In September 1990, CSC was awarded a three-year, $70 million contract by the Army Communications and Electronics Command (Fort Monmouth, NJ) to provide research and development support for command, control, and communications systems. Study areas include distributed processing, artificial intelligence, network performance, and simulation.

- In August 1990, CSC was awarded a ten-year, $48.8 million contract by the Treasury Department's Financial Management Service to modernize hardware and software systems that support cash management, payments, accounting, and other key functions of the agency.

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- In August 1990, CSC was awarded a three-year, $18.7 million contract from the Defense Mapping Agency to supply an integrated, worldwide map distribution system that will perform inventory control, order processing, warehouse and transportation management, and customer and product usage analysis.

- In August 1990, CSC won a $31.9 million expansion contract of work under a seven-year $100 million, 1988 contract to supply an integrated command and control information processing system to serve the worldwide facilities of the USAF Military Airlift Command.

- In August 1990, CSC was awarded a four-year, $48 million systems development and software support contract by the General Services Administration, Pacific Zone, for scientific and engineering applications, including prototyping, systems integration, expert systems, and computer-aided software engineering.

- In May 1990, CSC was awarded a three-year, $14.3 million contract by the Naval Ocean Systems Center (San Diego) to provide technical services supporting the center's general purpose computing center, computer resources center, and generalized communications.

CSC is a member of the AT&T team selected in December 1988 to replace the federal government's current telecommunications system. Known as FTS2000, the program provides government agencies with an integrated system for voice, data, and video services. CSC is providing a billing system and other software services for FTS2000. Both CSC's Systems Group and its Communications & Integration Services unit are engaged in the FTS2000 program.

CSC Consulting:

CSC Consulting provides management consulting, requirements analysis, system design, software development, system engineering and integration, communications systems engineering, and facilities management for non-federal organizations worldwide. These activities are performed by the following units:

- Index Group, Inc., based in Cambridge (MA), specializes in consulting and management educational services.

- CSC Partners Inc. (formerly Computer Partners, Inc.) is a wholly owned subsidiary based in Waltham (MA).

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- Cleveland Consulting Associates, based in Cleveland (OH), specializes in logistics and operations management consulting.

- Communications & Integration Services, based in Piscataway (NJ), specializes in services to telephone and electronics companies.

- CSC Computer Sciences Europe S.A., headquartered in London, manages CSC Consulting's activities in Belgium, France, Germany, the Netherlands, and the U.K. These activities include CSC N.V./S.A. (formerly CIG-Intersys) and Inforem.

Index Group's management consulting services include redesigning management and operational processes; assessing the information systems function and management; strategically planning and implementing information technology; building management planning, control, and communications systems; developing competitive application of information technology for sales and marketing; spurring development and implementation of "mission critical" systems; cutting information technology costs; and creating technology architectures. Index contributed approximately $40 million to CSC's fiscal 1990 revenue.

- In addition to consulting, Index Group conducts executive education programs and corporate-sponsored research for more than 200 major companies.

- Index Group works primarily for the Fortune 500 manufacturing and service companies in the U.S. and the Financial Times 500 in Europe. The firm has assisted 19 of the 25 largest U.S. corporations.

- In March 1989, CSC was awarded a five-year contract from Weirton Steel Co. (Weirton, WV) to assist in developing an advanced, integrated manufacturing information system to expedite customer delivery service, and reduce costs through improved inventory control and production scheduling. The contract involves a four-phase program, of which the first phase is valued at $5 million.

- Under a four-year, multimillion dollar contract awarded in June 1989, Index will assist a leading financial services firm to manage the organizational and business changes associated with the implementation of new company-wide computer systems. Index will develop management initiatives and new organizational structures to transition the client into a market-

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driven company, and ensure that the new computer systems support the client's business goals.

CSC Partners provides custom programming, systems consulting, design, integration, and implementation services, and education and training to Fortune 1000 corporations and other large computer users. CSC Partners' fiscal 1990 revenue reached $65 million, a 52% increase over fiscal revenue of $40 million.

- Services are targeted to communications and energy utilities; state and local government; and the financial services, publishing, retail, and distribution industries.

- In March 1989, CSC Partners was awarded a $16 million, three-year contract from the Massachusetts Water Resources Authority (MWRA) to develop, integrate, and install an information system that will enable MWRA to monitor and control its capital projects to improve water and sewer systems in 60 communities. CSC Partners will also provide related operational procedures, office automation, and computer networking systems.

- CSC Partners developed an integrated point-of-sale system for McDonald's that controls and monitors all of its food and beverage concessions at Toronto's Skydome. The system also schedules employees' work periods and prepares payrolls.

- Other CSC Partners clients include E.I. DuPont, Motorola, Sterling Drug, Panasonic, Boise Cascade, State Street Bank, Allied-Signal, and The Boston Company.

Cleveland Consulting counsels clients on strategies and effective management of all links in their supply chain. It serves more than 250 clients worldwide, including 25 of the 50 largest U.S. industrial companies.

Communications & Integration Services supports AT&T with software development and network-related services and provides integration services to electronics companies.

- CSC has had a continuous contractual relationship with AT&T for 20 years.

- Under contract to an electronics company, this unit is developing a security system for Honolulu International Airport.

- In 1989, this CSC unit also began the development of a

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customer service system for Cincinnati Gas & Electric Co. under a multiyear contract.

CSC's European operations provide consulting, software development, and systems integration services to national and transnational clients primarily in Belgium, France, Germany, the Netherlands, and the U.K. Contract examples include:

- The development and integration of a global reservation system for a major travel and leisure company headquartered in Paris
- An inventory control system for a German transport company
- Development of an information technology strategy for a major insurance company in the U.K., including follow-on work for its international operations
- The development of banking systems for the Belgian branch of a large Asian bank, which follows similar development work for the bank's Dutch branch
- Management of all computer services for the Mersey Regional Health Authority in England under a $16.2 million facilities management contract

In the area of commercial systems integration, CSC has the following alliances:

- In June 1990, CSC and Mitsui & Co. entered into an agreement to jointly market systems integration services to U.S. operations of Japanese companies.
- In January 1990, CSC signed a service alliance agreement with DEC to pursue systems integration business in the distribution and logistics marketplace, as well as opportunities within the telecommunications industry.
- In November 1989, CSC signed a joint marketing agreement with SAP America Inc. to jointly market vertical-industry solutions primarily in the manufacturing and distribution-related industry segments, using SAP's line of software products called the R/2 system.
- CSC Partners' Minneapolis (MN) office is an IBM Business Partner for midrange systems.

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Industry Services:

The Industry Services Group provides specialized services to the casualty/health insurance markets, credit grantors, and to CPAs for income tax return processing through the following units.

The Health and Administrative Services Division provides large-scale medical claims processing, systems operations, and related services for state and federal agencies.

- In August 1990, CSC announced that its agreement with the state of New Jersey to service automobile insurance policies had been extended through September 1993.
  - CSC is one of several companies that began working in March 1989 for the New Jersey Joint Underwriting Association (JUA) to serve drivers unable to get coverage in the private insurance market.
  - CSC performs virtually all of the functions of a private insurer, with the underwriting risk borne by the JUA. The JUA insures assigned-risk motorists unable to obtain damage and liability insurance in the standard market.
  - As a result of legislation implemented during 1990 in the state of New Jersey, as of September 1993, the JUA program will end.
- The division also acts as servicing agent for the federal government's National Flood Insurance Program, operating one of the largest property insurance programs in the nation at its Lanham (MD) facility.
  - The unit performs all of the policy, claims, marketing, and administrative functions of an insurance company, with the government assuming the underwriting risk.
- The division also processes claims from providers of health services for the state of New York's Medicaid program and medical claims from coal miners for the U.S. Department of Labor's black-lung program (a new four-year contract was awarded to CSC in June 1989).

Logic, Inc., acquired in February 1990, provides systems operations, processing services, and application software products for the administration of life and disability insurance for credit loans and mortgages, collateral protection insurance, and insurance for automobile manufacturers' warranties.

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- The majority of Logic's business is from full administration (systems operations) services, followed by processing services and software licensing. Logic's CALS-II software is available for IBM and compatible mainframes and microcomputers and through Logic's data center in Dallas.

- Logic currently has approximately 100 clients, including insurance companies, financial institutions, and financial subsidiaries of automobile manufacturers.

CSC Healthcare Systems provides turnkey systems, application software, and associated support services to managed-health care companies.

- ComCare is a Prime-based turnkey system for health maintenance organizations, preferred provider organizations, third-party administrators, and traditional indemnity carriers. ComCare includes modules for membership and billing, claims processing, utilization review, finance and accounting, and ancillary clinical functions. There are over 200 systems installed in 30 states.

- The division also provides IBM AS/400 and 3090-based application software and turnkey systems for medical groups, managed-health care organizations, and private practices nationwide.

  - The products support various medical office functions, including utilization management, benefits coordination, claims adjudication, premium and fee-for-service billing, membership, and general financial functions.

  - The products are installed in over 800 physicians' offices and at more than 60 health maintenance organizations (HMOs).

CSC Credit Services generated an estimated $115 million in revenue during fiscal 1990, compared to $110.9 million in fiscal 1989.

- As the result of an agreement formed with Equifax during 1988, credit reporting processing is furnished through Equifax's credit operations.

  - CSC has converted its more than 110 million consumer credit files to Equifax's computer system to create a joint national consumer credit file from which both companies can sell reports from each other's files to credit grantors, with Equifax performing the processing. This joint credit file

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provides nationwide credit grantors with a single source of credit information, instead of having to deal with multiple sources on a local or regional basis.

- CSC Credit Services continues to own its credit files and receives all revenues from the sale of the credit information they contain. CSC pays Equifax a processing fee for each report supplied to a credit grantor.

- CSC continues to own and operate 31 credit bureaus and provides services to another 35 associate, non-owned bureaus. CSC Credit Services also owns 31 collection agencies and provides all processing services for the collection agencies.

The TACS Division provides income tax return processing services to professional tax preparers located in 15 western and midwestern states.

- Services are provided on a batch basis from a data center in Los Angeles with direct access available via communications links.

- The division achieved a high profit margin and record revenue volume during fiscal 1990.

Industry Markets

A three-year summary of source of revenue follows ($ millions):

	FISCAL YEAR					
	3/30/90		3/31/89		4/1/88	
ITEM	REVENUE $	PERCENT OF TOTAL	REVENUE $	PERCENT OF TOTAL	REVENUE $	PERCENT OF TOTAL
Federal Government						
- Department of Defense	$531.7	35%	$479.8	37%	$430.0	37%
- NASA	233.9	16%	138.0	11%	136.7	12%
- Civil Agencies	227.2	15%	303.6	23%	199.8	18%
Subtotal	$992.8	66%	$921.4	71%	$766.5	67%
Commercial	$317.8	21%	$267.5	20%	$234.2	20%
State & Local Government	$42.5	3%	$37.1	3%	$60.3	5%
International	$147.3	10%	$78.4	6%	$91.4	8%
TOTAL	**$1,500.4**	**100%**	**$1,304.4**	**100%**	**$1,152.4**	**100%**

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Commercial revenue is derived from Fortune 500 companies in manufacturing, insurance, and banking and finance; telephone companies; and the retail, wholesale/distribution, medical, and services (primarily accountants) industries.

International revenue is derived from foreign governments, financial institutions, transportation companies, and manufacturers.

Geographic Markets

CSC's revenue and operating income by geographic region for the last three years has been as follows ($ millions):

	FISCAL YEAR					
	3/30/90		3/31/89		4/1/88	
ITEM	REVENUE $	PERCENT OF TOTAL	REVENUE $	PERCENT OF TOTAL	REVENUE $	PERCENT OF TOTAL
Revenue						
- U.S.	$1,353.1	90%	$1,226.0	94%	$1,061.0	92%
- International	147.3	10%	78.4	6%	91.4	8%
	$1,500.4	100%	$1,304.4	100%	$1,152.4	100%
Operating Income						
- U.S.	$114.6	98%	$105.1	98%	$85.0	91%
- International	2.3	2%	2.2	2%	8.9	9%
	$116.9	100%	$107.3	100%	$93.9	100%

CSC maintains offices in more than 200 locations throughout the U.S. Operations in the U.K., Belgium, Germany, and the Netherlands are through subsidiary companies.

Computer Hardware

Data centers operated by CSC include the following:

- CSC Credit Services' data center in Houston uses IBM 4381, DEC VAX 8650, and DEC VAX-II/785 systems.
- The Health and Administrative Services Division has an Amdahl 5870 installed in Lanham (MD) for claims processing and related insurance functions.
- CSC TACS has an IBM 4081 installed in Los Angeles.

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- Logic, Inc. has an IBM 3090-200E, MVS/ESA, installed in Dallas.

- In support of its research and development efforts in software engineering, supercomputing, and other fields, CSC's Systems Group at Falls Church (VA) operates several laboratories which evaluate equipment lent by manufacturers. Company-owned equipment at this location includes a Relational 1000 and a DEC MicroVAX II.

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COMPUTER SCIENCES CORPORATION
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El Segundo, CA 90245
(213) 615-0311

William R. Hoover, Chairman and President
Public Corporation, NYSE, PSE
Total Employees: 20,500
Total Revenue, Fiscal Year End 3/31/89: $1,304,414,000

The Company

Computer Sciences Corporation (CSC), founded in 1959, is the largest independent professional services company in the industry. Serving government and commercial clients, CSC provides management consulting in information technology, requirements analysis, software development, systems engineering and integration, turnkey computer-communications systems, and facilities management services. The company also provides industry-specific proprietary products and services for credit reporting, claims processing, health maintenance organizations, and income tax preparation.

CSC management has set the objective of becoming one of the top two or three companies in the commercial markets for consulting, systems integration, and related professional services in the U.S. and Europe in the next five years.

- Its strategies are to maintain its dominant position in the U.S. federal marketplace (which contributed 71% to fiscal 1989 revenue), while expanding its market share in non-federal markets through internal growth and acquisitions.

- To position itself for a leading role in the commercial marketplace, CSC has expanded its consulting and implementation capabilities, established a branch-office structure, begun the transfer of technology gained in large federal system projects to its commercial organization, and earmarked $500 million for investment in acquisitions.

Fiscal 1989 revenue reached $1.304.4 million, a 13% increase over fiscal 1986 revenue of $1,152.4 million. Net income for fiscal 1989 was nearly $52.5 million, a 21% increase over net income of $43.5 million for fiscal 1988. In the five-year summary that follows, financials include results of businesses acquired from their respective dates of acquisition as well as the results of businesses sold up to the date of their divestiture:

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($ thousands, except per share data)

	FISCAL YEAR				
ITEM	3/31/89	4/1/88	4/3/87	3/28/86	3/29/85
Revenue	$1,304,414	$1,152,351	$1,031,459	$838,587	$723,492
• Percent increase from previous year	13%	12%	23%	16%	2%
Income before taxes	$84,464	$71,351	$58,096	$42,764	$41,057
• Percent increase from previous year	18%	23%	36%	4%	35%
Net income	$52,482	$43,524	$32,243	$23,948	$27,718
• Percent increase (decrease) from previous year	21%	35%	35%	(14%)	52%
Primary earnings per share	$3.28	$2.73	$2.08	$1.69	$2.02
• Percent increase (decrease) from previous year	20%	31%	23%	(16%)	53%

Recent acquisitions made by CSC include the following:

- In June 1989, CSC completed the acquisition of CIG-Intersys Group and its subsidiaries from Societe Generale de Belgique, S.A. and Generale de Banque, S.A. Terms of the cash transaction were not disclosed.

  - Based in Brussels, CIG is the largest information services company in Belgium, with 1988 revenues of approximately $85 million, exclusive of an electronic banking network service not included in the acquisition.

  - CIG, with approximately 1,000 employees at the time of the acquisition, provides consulting, systems integration, software, computer facilities management, and related services. Its major markets include the banking, insurance, transportation, and distribution industries.

  - The acquisition, which more than doubles the volume of CSC's European revenues, is viewed by CSC management as key to achieving a dominant position in European markets for information technology.

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- CSC will consolidate its Belgian operations with those of CIG.

- In April 1989, CSC acquired Seako, Inc. of Birmingham (AL). Terms of the acquisition were not disclosed.

  - Seako specializes in IBM-based software products for medical groups, managed health care organizations and private practices and is a value-added reseller of IBM equipment.

  - Seako has annual revenues of approximately $7 million.

  - Seako now operates as a wholly owned subsidiary of CSC in close connection with CSC Comtec, which provides similar services.

- In October 1988, CSC acquired Index Group, Inc. of Cambridge (MA). Terms of the purchase were not disclosed.

  - Index Group provides strategic planning, consulting, education, and research services in the use and management of information technology to large corporations.

  - At the time of the acquisition, Index Group had annual revenues of about $30 million and approximately 140 employees at its Cambridge headquarters and offices in Los Angeles and London.

  - Index Group now operates as a wholly owned subsidiary of CSC within CSC's Consulting Group.

Divestitures announced by CSC include the following:

- In March 1989, CSC sold its CSC Compufact subsidiary to Madic Corporation of Santa Clara (CA). Terms of the sale were not disclosed.

  - Based in Garden Grove (CA), CSC Compufact provides turnkey systems and professional services to manufacturers.

  - The sale of CSC Compufact resulted from CSC management's decision to serve the manufacturing market on a hardware-independent basis through its Consulting Group.

- In January 1989, CSC sold a majority interest in its INFONET subsidiary (Network Services business unit) to a group of

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European and Pacific Basin telecommunications administrations to strengthen INFONET's position as a leading international communications service for the interconnection of national public data networks around the world.

- CSC will remain the largest single shareholder of INFONET and will continue to build on INFONET's network capabilities in its systems integration activities.

- As a result of the sale, beginning in the fourth quarter of fiscal 1989, CSC accounts for its share of INFONET earnings on an equity basis.

In August 1988, CSC signed an agreement with Equifax, Inc. under which Credit Bureau Incorporated of Georgia (CBI), a wholly owned subsidiary of Equifax, will supply data processing for CSC Credit Services' credit reporting operation.

- CSC has converted its more than 110 million consumer credit files to CBI's computer system to create a joint national consumer credit file from which both companies can sell reports to credit grantors, with CBI performing the processing.

- CSC Credit Services continues to own its credit files and receives all revenues from the sale of the credit information they contain. CSC pays CBI a processing fee for each report supplied to a credit grantor.

- CSC continues to own and operate its credit bureaus and collection agencies and provides all processing services for the collection agencies.

- The agreement also gives CSC a 25-year option, exercisable on March 25, 1991, to sell CSC Credit Services to Equifax at a price based on certain terms, but for not less than $365 million during the first seven years.

- CSC management's current objective it to continue building its CSC Credit Services business. The agreement with Equifax offers expanded market potential, cost benefits, and improved profit performance.

CSC's organization structure is shown in the exhibit. The company currently provides its products and services through three operating groups:

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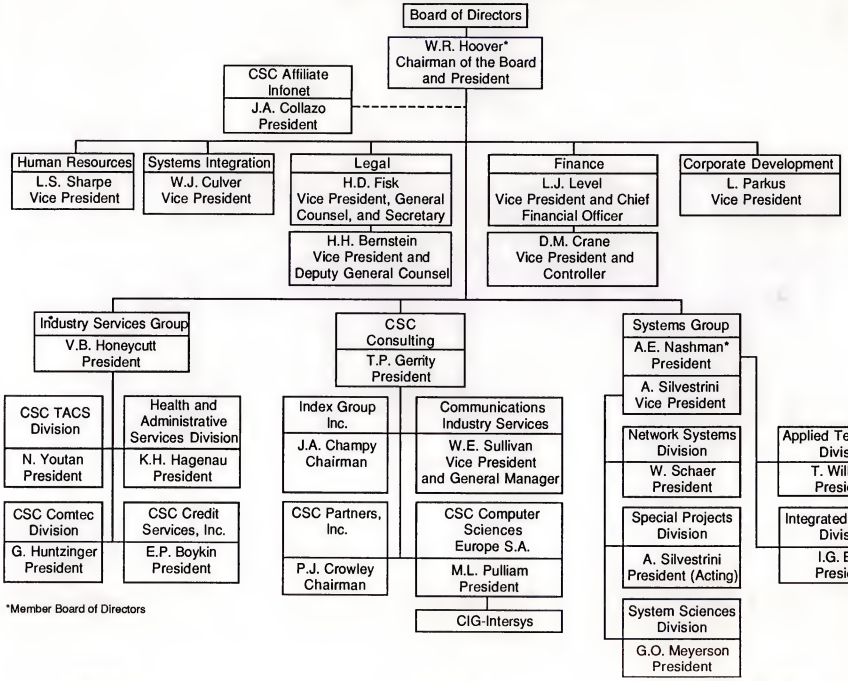
EXHIBIT

Computer Sciences Corporation



*Member Board of Directors

- The Systems Group, headquartered in Falls Church (VA), is the company's primary resource for computer and communications technology. Its five divisions, which primarily serve the U.S. government, include the following:

  - The Integrated Systems Division
  - The System Sciences Division
  - The Network Systems Division
  - The Special Projects Division
  - The Applied Technology Division

- CSC Consulting, headquartered in Cambridge (MA), is the counterpart of the Systems Group in the commercial marketplace. This unit consists of the following units:

  - Index Group, Inc.
  - CSC Partners, Inc.
  - Communications Industry Services
  - CSC Computer Sciences Europe S.A.

- The Industry Services Group, headquartered in El Segundo (CA), provides specialized services to specific industries and markets through several divisions and wholly owned subsidiaries. This group combines three former "business units" as follows:

  - "Health and Insurance Systems"

    - Health and Administrative Services Division
    - CSC Comtec Division
    - Seako, Inc.

  - "Credit Services"

    - CSC Credit Services, Inc.

  - "Complementary Services"

    - CSC TACS Division

- In addition, CSC maintains close ties to INFONET Services Corporation, an affiliated company that provides communications and computer services worldwide. INFONET is jointly owned by CSC and the telecommunications administrations of several European and Australasian countries.

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A three-year summary of source of revenue follows:

CSC SOURCES OF REVENUE
($ millions)

	FISCAL YEAR		
ITEM	3/31/89	4/1/88	4/3/87
Systems Group			
- Federal government	$863.9	$694.2	$617.1
- Commercial	9.6	14.5	8.7
- State & local government	3.9	4.7	5.8
- International	3.7	12.6	15.0
Subtotal	**$881.1**	**$726.0**	**$646.6**
CSC Consulting			
- Federal government	$2.4	--	--
- Commercial	80.9	51.7	31.8
- State & local government	1.8	3.8	9.6
- International	58.7	60.9	41.2
Subtotal	**$143.8**	**$116.4**	**$82.6**
Health and Insurance Systems (a)			
- Federal government	$29.2	$33.0	$34.2
- Commercial	18.9	16.4	13.9
- State & local government	31.3	51.6	65.7
Subtotal	**$79.4**	**$101.0**	**$113.8**
Credit Services (a)			
- Federal government	$0.7	--	--
- Commercial	110.2	101.8	86.6
Subtotal	$110.9	$101.8	$86.6
Complementary Services (a)(b)			
- Commercial	$25.5	$26.2	$21.2
Network Services (c)			
- Federal government	$25.2	$39.3	$43.0
- Commercial	22.4	23.6	22.0
- State & local government	0.1	0.2	0.5
- International	16.0	17.9	15.2
Subtotal	**$63.7**	**$81.0**	**$80.7**
Total Revenue	**$1,304.4**	**$1.152.4**	**$1,031.5**

(a) These units are now part of the Industry Services Group. Beginning in fiscal 1990, the results of these businesses will be reported by group only.

(b) Includes the results of CSC Compufact, which was sold in March 1989.

(c) Includes the results of INFONET only for the first three quarters of fiscal 1989. Future earnings from this business will be accounted for under the equity method.

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In terms of absolute dollars, the principal revenue growth area of CSC over the last three years has been in the Systems Group, which increased 21% to $881.1 million in fiscal 1989, 12% to $726 million in fiscal 1988, and 17% to $646.6 million in fiscal 1987. Federal government revenue growth during fiscal 1989 reflected the award of several large service contracts. Revenue growth during fiscal 1988 resulted principally from increased business with civil and scientific agencies.

- CSC Consulting is experiencing the fastest rate of growth, with a 24% increase in revenue during fiscal 1989. This growth reflects the continued expansion of domestic operations and six months of operations of Index Group, Inc., which was acquired in September 1988. During fiscal 1988, revenue increased 41% due to growth in both European and domestic markets.

- Industry Service Group revenue declined 6%, from $229 million in fiscal 1988 to $215.8 million in fiscal 1989. Results were attributed to the following:

  - Credit Services revenue rose 9% during fiscal 1989 to $110.9 million, 18% during fiscal 1988 to $101.8 million, and 49% during fiscal 1987 to $58.1 million. The growth in the three-year period reflects increases in ongoing consumer credit services together with acquisitions.

  - Health and Insurance Systems revenue of $79.4 million in fiscal 1989 reflects a decrease of 21% from the prior year, due primarily to completion of a major Medicaid contract with the state of California in early fiscal 1989. Revenue in fiscal 1988 declined 11% from fiscal 1987 due to reductions in Medicaid business. Health and Insurance Systems' revenue is expected to increase during fiscal 1990, due primarily to work recently begun on a large contract with the state of New Jersey in the area of automobile insurance.

  - In the Complementary Services area, revenue was unchanged from fiscal 1988 to 1989. Results include CSC Compufact, which was sold by CSC in March 1989.

- Network Services revenue of $63.7 million for fiscal 1989 represents only nine months of operations due to the sale of a majority interest in INFONET in January 1989, as compared with approximately $81 million from full-year operations in both fiscal 1988 and 1987. INFONET revenue for the fourth quarter of fiscal 1989 is not included in CSC's total revenue and future INFONET revenue will be accounted for under the equity method.

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As of August 1989, CSC had approximately 20,500 employees segmented as follows:

Systems Group	71%
CSC Consulting	13%
Industry Services Group	15%
Other	1%
	100%

Major competitors by primary service/product area, include the following:

- Federal government professional services: TRW, Hughes Aircraft, IBM, Planning Research Corporation (PRC), General Electric, AT&T, Unisys and Ford Aerospace & Communications Co.
- Commercial professional services: Andersen Consulting, Electronic Data Systems (EDS), and IBM.
- Medicaid claims processing: Blue Cross/Blue Shield and EDS
- Credit reporting service: TRW Information Services and TransUnion
- Health care systems: Jergovan and Blair, Inc.

Key Products and Services

The Systems Group is the company's primary provider of technical services to the federal government. Services provided include systems engineering and integration, the development of custom-designed computer-based systems and communications systems, operational support of clients' technical activities, clients' computer facilities management, and turnkey system development.

- The Systems Group consists of five units:
  - The Integrated Systems Division, based in Moorestown (NJ), designs, implements, and integrates systems for office automation, digital imaging, administrative and engineering support, and for military uses such as weapons control, logistics, wargaming, and command, control, and communications (C^3I). The division was formed by consolidating CSC's former Defense Systems, Systems, and Systems International divisions.
  - The System Sciences Division, headquartered in Calvert (MD), provides systems engineering, analysis, software

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development, and end-to-end integrated data systems and services primarily to aerospace clients such as NASA and the FAA.

- The Network Systems Division, headquartered in Falls Church (VA), designs and builds communications networks and real-time telemetry systems for military and civil agencies of the government.

- The Special Projects Division, headquartered in Falls Church (VA), performs high-level technical management projects, known as systems engineering and technical assistance (SETA), for the government. The division also performs research and development in systems and software technologies, and special activities in signal processing, communications systems, and information processing.

- The Applied Technology Division, headquartered in Fall Church (VA), provides facilities management services, primarily for NASA; provides operations and maintenance services to aircraft and weapons test centers; and provides software development support to federal agencies.

• Recent system integration contract awards include the following:

- In August 1989, the Navy's Pacific Missile Test Center awarded CSC a $14.1 million contract to provide four real-time telemetry processing systems for in-flight engineering analyses of aircraft and weapon systems.

- In March 1989, CSC was awarded a $22.7 million, five-year contract from the Defense Communications Agency to assist in upgrading the command, control, and communications systems of the U.S. Transportation Command, which is responsible for providing global land, sea, and air transport to the Defense Department. CSC will provide a master plan and system architectures, and perform systems integration and other activities.

- In December 1988, CSC was awarded a $106 million, eight-year contract from the U.S. Marine Corps to provide integration support services for Marine Corps headquarters and three other sites. Tasks include requirements definition, systems analysis and design, programming and test of new application software, and maintenance of existing software.

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- In December 1988, CSC was awarded a $111 million, seven-year contract from the U.S. Air Force Military Airlift Command to supply an integrated command and control information processing system. CSC will supply the hardware and software, and install the system at the Air Force command's worldwide facilities.

- Under a $140 million contract awarded in June 1986, CSC is currently developing a stock control and distribution system for the Air Force Logistics Command.

- Under a $300 million contract awarded in August 1985, CSC is currently developing a large, secure, packet-switch network for the U.S. Treasury Department. Known as the Consolidated Data Network, the network serves thousands of users in the U.S. Customs Service, Internal Revenue Service, Bureau of Alcohol, Tobacco and Firearms, and other Treasury operations. The contract calls for CSC to develop and operate the network over an eight-year period.

• Other recent contract awards include the following:

- In April 1989, CSC won a $62 million, five-year contract from the Naval Surface Warfare Center (Dalgren, VA) to provide technical and engineering services to support the Aegis weapon system. CSC has been the software engineering contractor for Aegis throughout its development and production.

- In January 1989, CSC won a $47 million, five-year recompete (of work performed since 1976) from the Federal Aviation Administration (FAA), Pomona (NJ), for the production of software for the current en-route air traffic control system. CSC will also develop new capabilities for the system, including automated advisories to assist air traffic controllers to prevent accidents.

- CSC is a member of the AT&T team selected in December 1988 to replace the federal government's current telecommunications system. Known as FTS2000, the program will provide government agencies with an integrated system for voice, data, and video services. CSC will provide a billing system and other software services for FTS2000. Both CSC's Systems Group and its Communications Industries Services unit are engaged in the FTS2000 program.

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- In December 1988, CSC won a $52 million, seven-year contract from NASA Ames Research Center for operation, planning, and development services in support of NASA's supercomputer facilities. The work involves the Numerical Aerodynamic Simulation (NAS) system.

- In July 1988, CSC-Pan Am Kauai--a joint venture of CSC (managing partner), Pan American World Services, and EC Corp.-- was awarded at $93 million, five-year contract from the U.S. Navy Pacific Missile Range Facility (Kauai) to provide operations and maintenance of the Pacific Missile Range Facility, used for evaluation and test of air, surface, and subsurface weapons.

- In July 1988, CSC, teamed with IBM, was selected by the FAA to develop the Advanced Automation System, which will completely modernize the current air traffic control system. In work estimated at several hundred millions of dollars in value, CSC will develop and integrate software for a wide range of applications.

- In June 1988, CSR--a joint venture of CSC (managing partner) and Raytheon--was awarded a $350 million, five-year contract by the U.S. Air Force Eastern Space and Missile Center (Florida) to provide technical services to the Eastern Test Range. CSC is responsible for all of the range telemetry, radar, communications, instrumentation, data processing, and downrange base support for spacecraft and missiles launched from Kennedy Space Center and Canaveral Air Force Station.

- In January 1987, CSC was awarded a $100 million, ten-year contract to provide complete facilities management services to NASA's Slidell (LA) Computer Facility.

CSC Consulting provides management consulting, requirements analysis, system design, software development, system engineering and integration, communications systems engineering, and facilities management for non-federal organizations worldwide.

- These activities are performed by the following units:

  - CSC Partners Inc. (formerly Computer Partners, Inc.) is a wholly owned subsidiary based in Waltham (MA).

  - Communications Industry Services, based in Piscataway (NJ), specializes in services to telephone companies.

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- Index Group, Inc., based in Cambridge (MA), specializes in consulting and management educational services.

- CSC Computer Sciences Europe S.A., headquartered in Brussels, manages CSC Consulting's activities in Belgium, the Netherlands, the U.K., and West Germany. These activities include CIG-Intersys, which was acquired by CSC in June 1989.

• The acquisition of Index Group expanded CSC's range of management and technical services in the commercial area.

  - Index Group's management consulting services include redesigning management and operational processes; assessing the information systems function and management; strategically planning and implementing information technology; building management planning, control, and communications systems; developing competitive application of information technology for sales and marketing; spurring development and implementation of "mission critical" systems; cutting information technology costs; and creating technology architectures.

  - In addition to consulting, Index Group conducts executive education programs and corporate-sponsored research for more than 200 major companies.

  - Index Group works primarily for the Fortune 500 manufacturing and service companies in the U.S. and the Financial Times 500 in Europe. The firm has assisted 19 of the 25 largest U.S. corporations.

  - In March 1989, CSC was awarded a five-year contract from Weirton Steel Co. (Weirton, WV) to assist in developing an advanced, integrated manufacturing information system to expedite customer delivery service, and reduce costs through improved inventory control and production scheduling. The contract involves a four-phase program, of which the first phase is valued at $5 million.

  - Under a four-year, multimillion dollar contract awarded in June 1989, Index will assist a leading financial services firm to manage the organizational and business changes associated with the implementation of new company-wide computer systems. Index will develop management initiatives and new organizational structures to transition the client into a market-driven company, and ensure that the new computer systems support the client's business goals.

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- CSC Partners provides custom programming, systems consulting, design, integration, and implementation services, and education and training to Fortune 1000 corporations and other large computer users.

  - Services are targeted to communications and energy utilities; state and local government; and the financial services, retail, and distribution industries.

  - CSC Partner's revenue profit contribution, and order volume rose to record levels during fiscal 1989. CSC Partners has doubled its annual revenue volume in less than three years to approximately $40 million.

  - In March 1989, CSC Partners was awarded a $16 million, three-year contract from the Massachusetts Water Resources Authority (MWRA) to develop, integrate, and install an information system that will enable MWRA to monitor and control its capital projects to improve water and sewer systems in 60 communities. CSC Partners will also provide related operational procedures, office automation, and computer networking systems.

  - In April 1989, CSC was awarded a one-year contract from Matson Navigation Co. (San Francisco, CA) to manage and implement the upgrade of Matson's freight management system.

  - Other CSC Partner clients include E.I. DuPont, Motorola, Sterling Drug, Panasonic, Boise Cascade, State Street Bank, Allied-Signal, and The Boston Company.

- Communications Industry Services primarily supports AT&T with software development and network-related services.

  - CSC has had a continuous contractual relationship with AT&T for 20 years.

  - In 1989, this CSC unit also began the development of a customer service system for Cincinnati Gas & Electric Co. under a multi-year contract.

- European activities of CSC Consulting include:

  - Management of all computer services for the Mersey Regional Health Authority in England under a $16.2 million facilities management contract.

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- Expanding assistance to the German national railway in the development of strategic electronic data interchange systems that link the railway with some of its major customers

- Developing a similar electronic data interchange system for the Australian railway

- Developing gateways for Spanish rail and major shipping companies in Spain and Italy

- Developing a national system for patents and trademark registration in the U.K.

- Providing ongoing support of a command and control system developed by CSC for the German navy's northern maritime headquarters

- Modernizing administrative systems for government agencies in Belgium and the Netherlands

The Industry Services Group provides specialized services to the casualty/health insurance markets, credit grantors, and to CPAs for income tax return processing through the following units:

- The Health and Administrative Services Division provides large-scale medical claims processing and related services for state and federal agencies.

  - In October 1988, the division was awarded a $560 million-plus, seven-year contract (including options) from the New Jersey Joint Underwriting Association (JUA) to act as servicing carrier for 425,000 auto insurance policy holders, commencing March 1, 1989.

    - CSC performs virtually all of the functions of a private insurer, with the underwriting risk borne by the JUA. The JUA insures assigned-risk motorists unable to obtain damage and liability insurance in the standard market.

    - The contract is expected to generate annual revenue of about $75 million by fiscal 1991, and total revenue of abut $240 million over four years.

  - The division acts as servicing agent for the federal government's National Flood Insurance Program, operating one of the largest property insurance programs in the nation at its Lanham (MD) facility.

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- The unit performs all of the policy, claims, marketing, and administrative functions of an insurance company, with the government assuming the underwriting risk.

- In June 1988, the division successfully recompeted for this contract with the Federal Emergency Management Agency and was awarded a $94.2 million, five-year contract.

- The division also processes claims from providers of health services for the state of New York's Medicaid program and medical claims from coal miners for the U.S. Department of Labor's black-lung program (a new four-year contract was awarded to CSC in June 1989).

- CSC Comtec provides turnkey systems and associated support services to managed-health care companies.

  - ComCare is a Prime-based turnkey system for health maintenance organizations, preferred provider organizations, third-party administrators, and traditional indemnity carriers. ComCare includes modules for membership and billing, claims processing, utilization review, finance and accounting, and ancillary clinical functions. There are over 150 systems installed in 30 states.

- Seako, Inc., acquired in April 1989, provides application software and turnkey systems for medical groups, managed-health care organizations, and private practices nationwide.

  - The products run on IBM AS/400 and 3090 computers and support various medical office functions, including utilization management, benefits coordination, claims adjudication, premium and fee-for-service billing, membership, and general financial functions.

  - Seako's products are installed in over 800 physicians' offices and at more than 60 health maintenance organizations (HMOs).

- CSC Credit Services, formerly Associated Credit Services, Inc. (ACS), is one of CSC's most profitable, high-growth operating units. Since CSC acquired ACS in 1982, Credit Services' annual revenue has increased from $25 million to $110.9 million in fiscal 1989.

  - As previously mentioned, as the result of an agreement formed with Equifax during 1988, credit reporting processing

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is furnished through Equifax's wholly owned subsidiary, Credit Bureau Incorporated of Georgia (CBI).

- CSC has converted its more than 110 million consumer credit files to CBI's computer system to create a joint national consumer credit file from which both companies can sell reports from each other's files to credit grantors, with CBI performing the processing. This joint credit file provides nationwide credit grantors with a single source of credit information, instead of having to deal with multiple sources on a local or regional basis.

- CSC Credit Services continues to own its credit files and receives all revenues from the sale of the credit information they contain. CSC pays CBI a processing fee for each report supplied to a credit grantor.

- CSC continues to own and operate 31 credit bureaus and provides services to another 35 associate, non-owned bureaus. CSC Credit Services also owns 31 collection agencies and provides all processing services for the collection agencies.

- In December 1987, CSC entered a major new market with the receipt of a contract, valued at more than $30 million over five years, from the General Services Administration. CSC Credit Services will collect delinquent loans and other debt owed to various federal agencies. The award is the unit's first federal contract.

- CSC TACS provides income tax return processing services to professional tax preparers located in 15 Western and Midwestern states.

  - Services are provided on a batch basis from a data center in Los Angeles with direct access available via communications links.

  - CSC TACS achieved a high profit margin and record revenue volume during fiscal 1989.

CSC maintains close business ties with its former subsidiary, INFONET, whose Network Services contributed 5% to total fiscal 1989 revenue. CSC remains the largest single shareholder of INFONET. As a result of the ownership sale, however, beginning with the fourth quarter of fiscal 1989, CSC no longer consolidates INFONET revenue and costs in its financial statements.

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- Established in 1970, INFONET operates a worldwide communications network, providing and computer and communications services to commercial companies and government agencies.

- The network offers direct access and end-to-end management capabilities in 21 countries, and local access from 105 countries. INFONET provides local support in 34 countries.

- INFONET shareholders are: CSC and the telecommunications administrations of eight countries: TRANSPAC on behalf of France Telecom; Germany's Deutsche Bundespost; Sweden's Teleinvest AB; Telefonica of Spain; Telecom Australia; Singapore Telecom International; PTT Telecom Netherlands; and Belgium's Regie des Telegraphes et des Telephones.

Industry Markets A three-year summary of source of revenue follows ($ millions):

	FISCAL YEAR					
	3/31/89		4/1/88		4/3/87	
ITEM	REVENUE $	PERCENT OF TOTAL	REVENUE $	PERCENT OF TOTAL	REVENUE $	PERCENT OF TOTAL
Federal Government						
- Department of Defense	$479.8	37%	$430.0	37%	$400.0	39%
- Civil Agencies	303.6	23%	199.8	18%	172.3	16%
- NASA	138.0	11%	136.7	12%	122.0	12%
Subtotal	$921.4	71%	$766.5	67%	$694.3	67%
Commercial	$267.5	20%	$234.2	20%	$184.2	18%
State & Local Government	$37.1	3%	$60.3	5%	$81.6	8%
International	$78.4	6%	$91.4	8%	$71.4	7%
TOTAL	**$1,304.4**	**100%**	**$1,152.4**	**100%**	**$1,031.5**	**100%**

Commercial revenue is derived from telephone companies; Fortune 500 companies in manufacturing, insurance, banking and finance; and the retail, wholesale/distribution, medical, and services (primarily accountants) industries.

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International revenue is derived from foreign governments, financial institutions, transportation companies, and manufacturers.

Geographic Markets

CSC's revenue and operating income by geographic region for the last three years has been as follows ($ millions):

	FISCAL YEAR					
	3/31/89		4/1/88		4/3/87	
ITEM	REVENUE $	PERCENT OF TOTAL	REVENUE $	PERCENT OF TOTAL	REVENUE $	PERCENT OF TOTAL
Revenue						
- U.S.	$1,226.0	94%	$1,061.0	92%	$960.1	93%
- International	78.4	6%	91.4	8%	71.4	7%
	$1,304.4	100%	$1,152.4	100%	$1,031.5	100%
Operating income						
- U.S.	$105.1	98%	$85.0	91%	$73.3	95%
- International	2.2	2%	8.9	9%	4.1	5%
	$107.3	100%	$93.9	100%	$77.4	100%

CSC maintains offices in more than 200 locations throughout the U.S. Operations in the U.K., Belgium, Germany, and the Netherlands are through subsidiary companies.

Computer Hardware

Data centers operated by CSC include the following:

- CSC Credit Services' data center in Houston uses an IBM 4381, DEC VAX 8650, and DEC VAX-II/785 systems.
- The Health and Administrative Services Division has an Amdahl 5870 installed in Lanham (MD) for claims processing and related insurance functions.
- CSC TACS has an IBM 4081 installed in Los Angeles.
- In support of its research and development efforts in software engineering, supercomputing, and other fields, CSC's Systems Group at Falls Church (VA) operates several laboratories which evaluate equipment lent by manufacturers. Company-owned equipment at this location includes a Relational 1000 and a DEC MicroVAX II.

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COMPUTER SCIENCES CORPORATION
2100 East Grand Avenue
El Segundo, CA 90245
(213) 615-0311

William R. Hoover, President and Chairman
Public Corporation, NYSE, PSE
Total Employees: 18,200
Total Revenue, Fiscal Year End 4/3/87: $1,031,459,000

THE COMPANY

- Computer Sciences Corporation (CSC), founded in 1959, is the largest independent professional services company in the industry. Serving government and commercial clients, CSC provides requirements analysis, software development, systems engineering and integration, communications, systems engineering, turnkey computer-communications systems, and facilities management services. The company also provides industry-specific proprietary products and services for credit reporting, claims processing, health maintenance organizations, income tax preparation, and manufacturing and distribution applications. It also provides value-added communications and remote computing services via INFONET, CSC's international data communications network.

- CSC's management objectives are to continue to maintain strong revenue growth and a leading position in the federal government marketplace (which contributed two-thirds of CSC's fiscal 1987 revenue), while increasing the percent contribution of revenue from its non-federal markets through both internal growth and acquisitions. The company plans to invest over $200 million in acquisitions by fiscal 1991, primarily in professional services and the fields of consumer finance, health care, and insurance. The company is also giving major attention to the emerging commercial and international markets for systems integration services, drawing on its experience in large federal systems integration programs.

- Fiscal 1987 revenue reached $1,031.5 million, a 23% increase over fiscal 1986 revenue of $838.6 million. Net income was $32.2 million in fiscal 1987, compared to $23.9 million in fiscal 1986. A five-year financial summary follows:

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CSC
FIVE-YEAR FINANCIAL SUMMARY
($ thousands, except per share data)

ITEM \ FISCAL YEAR	4/3/87	3/28/86	3/29/85	3/30/84	4/1/83
Revenue	$ 1,031,459	$838,587	$723,493	$712,224	$694,914
. Percent increase from previous year	23%	16%	2%	2%	10%
Income before taxes	$ 58,096	$ 42,764	$ 41,057	$ 30,483	$ 32,524
. Percent increase (decrease) from previous year	36%	4%	35%	(6%)	(3%)
Net income	$ 32,243	$ 23,948	$ 27,718	$ 18,266	$ 17,888
. Percent increase (decrease) from previous year	35%	(14%)	52%	2%	1%
Primary earnings per share	$ 2.08	$ 1.69	$ 2.02	$ 1.32	$ 1.32
. Percent increase (decrease) from previous year	23%	(16%)	53%	-	1%

- Net income for fiscal 1985 includes a non-recurring gain of $9.5 million pretax, $8.7 million after tax ($0.63 per share) from the sale of Paid Prescriptions, Inc., a wholly owned subsidiary that provided drug claims processing. The gain is net of reserves established for the planned phase-down of certain ancillary product and service offerings. Excluding this gain, fiscal 1986 net income increased 26% over fiscal 1985.

  - In December 1984 CSC sold Paid Prescriptions to Porex Technologies Corporation for $14.7 million and 559,906 shares of Porex common stock valued at $13.3 million.

  - During 1986 CSC sold the Porex common stock, resulting in a gain of approximately $1.3 million, which is included in operating income.

- CSC provides its products and services through the following operating groups:

  - Federal Systems and Services, represented by the operations of CSC's Systems Group (headquartered in Falls Church, VA), is the company's primary provider of technical services to the federal government. Services provided include system engineering and integration, the

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development of custom-designed computer-based systems and communications systems, operational support of clients' technical activities, clients' computer facilities management, and turnkey system development.

- The Systems Division, headquartered in Falls Church (VA), primarily designs and builds systems for office information, digital documentation, and administrative support.

- The System Sciences Division, headquartered in Silver Spring (MD), provides systems engineering, analysis, software development, and end-to-end integrated data systems and services primarily to aerospace clients such as NASA and the FAA.

- The Network Systems Division, headquartered in Falls Church (VA), designs and builds communications networks and real-time telemetry systems for military and civil agencies of the government.

- The Special Projects Division, headquartered in Falls Church (VA), performs high-level technical management projects, known as systems engineering and technical assistance (SETA), for the government. The division also performs research and development in systems and software technologies, and special activities in signal processing, communications systems, and information processing.

- The Systems International Division, headquartered in Herndon (VA), markets and supports systems and consulting contracts in the Middle East, Asia, and South America.

- The Applied Technology Division, headquartered in Falls Church (VA), provides facilities management services, primarily for NASA; provides operations and maintenance services to aircraft and weapons test centers; and provides software development support to federal agencies. This division includes the operations of the former Energy Research Division which manages a contract with the Department of Energy.

- The Defense Systems Division, headquartered in Moorestown (NJ), designs and develops military systems for weapons control, logistics, wargaming, training, and command and control.

- Health and Insurance Systems provides processing services, turnkey systems, and associated services through two separate business units as follows:

  - The Health and Administrative Services Division, headquartered in Sacramento (CA), performs Medicaid facilities management processing for state governments; manages the National Flood

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Insurance Program for the Federal Emergency Management Agency; and processes black-lung medical claims for the Department of Labor.

  - CSC Comtec, Inc., headquartered in Farmington Hills (MI), provides turnkey systems and services to health maintenance organizations, preferred provider organizations, third-party administrators, and traditional indemnity plans.

- Professional Services, headquartered in El Segundo (CA), provides requirements analysis, system design, software development, system engineering and integration, communications systems engineering, and facilities management for non-federal organizations in industry and government. These activities are performed by:

  - Computer Partners Inc., a wholly owned subsidiary based in Waltham (MA).

  - Communications Industry Services, based in Piscataway (NJ), which specializes in services to telephone companies.

- Computer Sciences Europe, headquartered in Brussels, manages the activities of subsidiaries in Belgium, the Netherlands, Switzerland, the United Kingdom, and West Germany. These units provide commercial professional services as described above, and market and support INFONET data communications services in Europe.

- Credit Services provides consumer credit reporting and collection services to credit grantors and independent credit bureaus through Associated Credit Services, Inc., a wholly owned subsidiary based in Houston (TX).

- Network Services, headquartered in El Segundo (CA), provides value-added network services, enhanced data communication services, and remote computing services on an international basis. Service is focused on international markets for data communications.

  - The INFONET Division, headquartered in El Segundo, markets data communications services to commercial and international clients.

  - The Government Systems Division, headquartered in Arlington (VA), markets remote computing and data communications services to agencies of the federal government.

  - The Development and Operations Division, headquartered in El Segundo, supports R&D application development, data center operations, and maintenance of the network.

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- Complementary Services provides industry-specific products and services through the following units:

  - The TACS Division, based in Los Angeles (CA), processes income tax returns for tax preparers.

  - CSC Compufact, Inc., headquartered in Garden Grove (CA), provides turnkey systems, application software, and professional services to manufacturers and distributors.

- CSC's current organization structure is shown in the exhibit.

- A three-year summary of CSC's sources of revenue by business unit follows:

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EXHIBIT

CSC ORGANIZATION CHART

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CSC SOURCES OF REVENUE
($ millions)

ITEM / FISCAL YEAR	4/3/87	3/28/86	3/29/85
Federal Systems and Services			
- Federal government	$ 617.1	$ 514.5	$ 446.3
- Commercial	8.7	5.8	3.9
- State and local government	5.8	7.0	7.1
- International	15.0	51.0	45.8
Subtotal	$ 646.6	$ 578.3	$ 503.1
Health and Insurance Systems			
- Federal government	$ 34.2	$ 34.4	$ 28.8
- Commercial	13.9	1.3	0.2
- State and local government	65.7	30.2	30.3
Subtotal	$ 113.8	$ 65.9	$ 59.3
Credit Services			
- Commercial	$ 86.6	$ 58.1	$ 42.1
Professional Services			
- Commercial	$ 31.8	$ 21.4	$ 10.4
- State and local government	9.6	10.0	3.4
- International	41.2	20.0	11.2
Subtotal	$ 82.6	$ 51.4	$ 25.0
Network Services			
- Federal government	$ 43.0	$ 38.0	$ 30.4
- Commercial	22.0	17.7	29.0
- State and local government	0.5	0.3	1.3
- International	15.2	12.5	10.7
Subtotal	$ 80.7	$ 68.5	$ 71.4
Complementary Services			
- Commercial	$ 21.2	$ 16.4	$ 22.6
Total Revenue	$ 1,031.5	$ 838.6	$ 723.5

- The principal revenue growth area of CSC over the last three years has been in Federal Systems and Services, which increased 17% to $646.6 million in fiscal 1987, 15% to $578.3 million in fiscal 1986, and 8% to $503.1 million in fiscal 1985. Federal government revenue growth during the past year stemmed both from ongoing programs and from the record contract orders (totalling over $1.1 billion) received during fiscal 1986.

  - The largest percentage increase in revenue in fiscal 1987 was in the Health and Insurance Systems area. Revenue increased 73% during

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fiscal 1987 to $113.8 million. The significant growth reflects the beginning of Medicaid claims processing operations in May 1986 for the state of New York, and the full-year operation of CSC Comtec, Inc., acquired late in fiscal 1986. Revenue increased 11% in fiscal 1986 to $65.9 million from $59.3 million in fiscal 1985.

- Credit Services revenue has more than doubled in the three-year period from $42.1 million in fiscal 1985 to $86.6 million in fiscal 1987. Fiscal 1987 revenue is up 49% over the prior year revenue of $58.1 million. The growth in the three-year period reflects increases in ongoing credit reporting activities together with acquisitions.

- Professional Services revenue of $82.6 million in fiscal 1987 is an increase of 61% over the prior year. Fiscal 1987 growth is due principally to a doubling of European revenues and the July 1986 acquisition of Computer Partners, Inc. Revenues in fiscal 1986 increased to $51.4 million, a 106% increase over the prior year's revenue. This increase is primarily attributable to growth in contract services in Europe and to growth in revenue from two domestic clients.

- Network Services revenue increased 18% to $80.7 million in fiscal 1987. The revenue growth exceeded expectations and came principally from new accounts in communications-based services and increases in remote computing services to federal agencies. Network services revenues of $68.5 million in fiscal 1986 decreased from the $71.4 million recorded in fiscal 1985 due to a reduction in commercial remote computing activities.

- In the Complementary Services area, revenue increased 29% to $21.2 million in fiscal 1987. The decrease in fiscal 1986 to $16.4 million from fiscal 1985 revenue of $22.6 million reflects the reduction in revenue due to the sale in December 1984 of Paid Prescriptions, Inc., a subsidiary that processed medical claims.

- During fiscal 1987, CSC spent approximately $47.8 million on the following acquisitions:

  - CSC, through its subsidiary, Associated Credit Services, acquired the following credit bureaus/collections agencies during fiscal 1987:

    - American Accounts, Inc. (Anderson, IN) in December 1986.
    - Credit Bureau of Cedar Rapids (Cedar Rapids, IA) in December 1986.
    - Credit Bureau of Duluth (Duluth, MN) in December 1986.
    - Credit Bureau of St. Cloud (St. Cloud, MN) in December 1986.
    - Johns Holding Company (Decatur, IL) in December 1986.

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  - Associated Credit Services of Oklahoma Inc. (Oklahoma City, OK) in September 1986.
  - Credit Adjustment Inc. (Seguin, TX) in September 1986.
  - Accounts Management Corporation (St. Louis, MO) in September 1986.
  - Accounts Management Corporation of Texas (Houston, TX) in July 1986.
  - Credit Bureau of St. Louis (St. Louis, MO) in July 1986.
  - Whites Collection Agency (Kansas City, MO) in April 1986.

- In July 1986 CSC acquired Computer Partners Inc. (Waltham, MA). Terms of the cash purchase were not disclosed.
  - Computer Partners provides consulting and systems development professional services to Fortune 1000 corporations and other large users of computers.
  - Computer Partners' annual revenues exceeded $20 million and the company had 300 employees at the time of the acquisition.
  - Computer Partners now operates as a wholly owned subsidiary of CSC within CSC's Professional Services operations.
- These purchases are part of a $200 million five-year strategic acquisition program begun in April 1986 to augment CSC's commercial business in credit services, health and insurance systems, professional services, and network services.

- Revenue for the six months ending October 2, 1987, was $555.9 million, a 15% increase over $483.4 million for the same period in 1986. Net income rose 40%, from $13.8 million to $19.4 million.
- As of September 1987 CSC had approximately 18,300 employees segmented as follows:

Federal Systems and Services	66%
Health and Insurance Systems	10
Credit Services	10
Professional Services	8
Network Services	3
Complementary Services	1
Other	2
	100%

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- Major competitors by primary service/product area, include the following:
  - Federal government professional services: TRW, Hughes Aircraft, IBM Federal Systems, Planning Research Corporation (PRC), General Electric, AT&T, Unisys (System Development Corporation), and Ford Aerospace & Communications Co.
  - Commercial professional services: Arthur Andersen, Electronic Data Systems (EDS), IBM, Martin Marietta, Computer Task Group, and AGS Computers.
  - Value-added network services: U.S. Sprint (Telenet) and McDonnell Douglas Network Systems (Tymnet).
  - Remote computing services (to federal agencies): Boeing Computer Services.
  - Medicaid claims processing: Blue Cross/Blue Shield and EDS.
  - Credit reporting service: TRW Information Services, Equifax, Chilton, and TransUnion.
  - Health care systems: Jergovan and Blair, Inc.
  - Manufacturing/distribution products: ASK Computer Systems and Triad Systems.

KEY PRODUCTS AND SERVICES

- Federal Systems and Services (the Systems Group) derives its revenue principally from agencies and military services of the U.S. government. Clients also include foreign governments and other international organizations. In fiscal 1987 the Systems Group generated 63% of total corporate revenue, or $646.6 million.
  - Professional services provided by this group include:
    - Systems integration of custom designed computer-based systems and communications systems.
    - Operational support of clients' technical activities.
    - Management of clients' computer facilities, including the provision of all information processing requirements.
    - Turnkey development of complete information systems, where CSC provides and integrates all of the hardware, software, training, and related elements required for delivery of operational systems.

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- The group has extensive experience in software development for aerospace and defense systems and systems engineering and technical assistance in computer communications, intelligence, aerospace, logistics, and related high technology fields.

- Recent system integration contract awards include the following:

  - In April 1987, CSC was awarded a $1.1 million, three-year contract (including options) from the Defense Communications Agency (Arlington, VA) to provide systems integration services for improvements of the Defense Communications System.

  - In April 1987, CSC was awarded a $24 million, three-year contract (including options) from the U.S. government for classified work for end-to-end telecommunications support.

  - In April 1987, CSC was awarded an $18.3 million, five-year contract (including options) from the Air Force Weapons Laboratory (Albuquerque, NM) for research, development, and integration services to protect critical space-based structures from nuclear attack and other threats. CSC has been providing these services since 1972.

  - In March 1987, CSC was awarded a $9.3 million, three-year contract (including options) from the Naval Ocean Systems Center (San Diego, CA) to provide information systems engineering services in support of financial, management, and administrative functions; assistance in the development of office automation systems; and computer operations.

  - In March 1987, CSC was awarded a $10.1 million, three-year contract (including options) from the Army Strategic Defense Command (Huntsville, AL) to supply a turnkey management information system for reporting on contractor and project performance, planning, cost accounting, and office automation.

  - In February 1987, CSC was awarded a $19 million, one-year contract from the Naval Air Test Center (Patuxent River, MD) to supply a telemetry processing system for real-time engineering analyses during flight tests.

- Other recent major contract awards include the following:

  - In October 1987, CSC was awarded a $150 million, five-year contract (including options) from NASA-Johnson Space Center to provide mission operations support to the Center's institutional computer facilities, including systems engineering, operations and maintenance, user support, training and procurement. About 30% of the contract value will go to subcontractors (IBM and Ford Aerospace).

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- In August 1987, CSC won a $47 million, five-year subcontract (including options) from NASA/McDonnell Douglas Astronautics (Houston) to provide applications and analyses support for mission planning system development, artificial intelligence technology, Ada applications, and software engineering.

- In March 1987, CSC won a $1 billion, 10-year contract (including options) from NASA Goddard Space Flight Center (Greenbelt, MD) to provide systems, engineering, and analysis services. The contract continues work, valued at about $40 million annually, that CSC has been performing under prior contracts and adds new work initially valued at about $25 million annually. About 25% of the total contract value will go to subcontractors. The work relates to flight dynamics, communications, software development, and data processing support.

- In February 1987, CSC won a $129.7 million, five-year contract (including options) from the Environmental Protection Agency to assist research laboratories and other sites in mathematical modeling, scientific applications, and the development of automated laboratory systems.

- In January 1987 CSC won a $100 million, ten-year contract (with options) from NASA Slidell Computer Facility (Slidell, LA) to provide facilities management and computational services, including the development and maintenance of large-scale operating systems, compilers, and assemblers; application programming, consultation, and management of the physical plant.

- Credit Services contributed 8% to CSC's total fiscal 1987 revenue. Associated Credit Services, Inc. (ACS) is one of the nation's leading consumer credit reporting network services and one of CSC's most profitable, high-growth operating units. Since CSC acquired ACS in 1982, ACS' annual revenue has increased from $25 million to $86.6 million in fiscal 1987.

  - ACS maintains credit information records on more than 110 million consumers and serves approximately 50,000 banks, retail establishments, and other credit grantors nationwide.

  - The firm provides consumer credit reports, accounts receivable collections, and management and promotional services for the solicitation of credit card business.

  - The network includes 22 owned and over 160 independent credit bureaus in 30 states. ACS also owns 33 collection agencies.

  - Membership includes both company-owned bureaus and "associates" that use the network under contract. Member bureaus' consumer credit information is stored and processed at a Houston data center.

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- On-line credit reports are ordered and bought by credit granters (retailers, financial institutions, hospitals and doctors, or anyone else who lends money or sells merchandise against later repayment) who contract with the member credit bureaus.

- Credit bureaus pull the information from a central file via communications terminals or microcomputers. There are about 7,000 terminals/PCs connected to the network.

- During fiscal 1987 ACS completed the transfer of its data communications to CSC's INFONET network and began a major modernization program for its credit information system.

- In December 1987 ACS entered a major new market with the receipt of a contract, valued at more than $30 million over five years, from the General Services Administration. ACS will collect delinquent loans and other debt owed to various federal agencies. The award is ACS's first federal contract.

- CSC's Professional Services unit, contributing 8% to total fiscal 1987 revenue, represents a targeted growth area for the company. Through this unit, CSC provides consulting and technical services in the development and integration of computer and communications systems to non-federal organizations in the U.S. and Europe. Contract examples include the following:

  - CSC is providing software development and maintenance for AT&T's Trunks Integrated Records Keeping System (TIRKS). One of the largest computer applications in commercial use, this circuit provisioning system contains more than 350 data bases and 18,000 software modules.

  - CSC's German subsidiary is ensuring just-in-time delivery of materials by steel suppliers to automobile manufacturers by interconnecting their computer systems with those of the German Railways. CSC had previously directed the development of the railways' own freight management systems.

  - CSC is supplying technical management of the computerization of Britain's income tax withholding system, called Pay As You Earn (PAYE). Estimated to cost over $340 million, the project involves the records of 27 million taxpayers and 18,000 terminals linked by an X.25 packet switch network to 11 processing centers. CSC is leading a team of government and contractor personnel in hardware procurement, system development, and implementation.

  - Computer Partners provides custom programming, systems consulting, design, integration, and implementation services, and education and training to Fortune 1000 corporations and other large computer users.

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- Services are targeted to communications and energy utilities; state and local government; and the financial services, retail, and distribution industries.

- Among Computer Partners' projects is the planning and development of a comprehensive system to support the merchandising, operations, and financial functions of Morse Shoe, Inc., a large shoe retailer operating multiple divisions, multiple warehouses, and more than 1,200 sales facilities in the U.S. and Canada.

- Other clients include AT&T, Bell Atlantic, NYNEX, State Street Bank & Trust, Bank of New England, Boston Gas Co., Eastern Utilities Assocs., Zayre Corp., Allied Stores, Stop & Shop, Motorola, Fram Automotive, Hartz Mountain, and Siemens.

- Health and Insurance Systems contributed 11% to total fiscal 1987 revenue.

  - The Health and Administrative Services Division provides large-scale medical claims processing and related services for state and federal agencies.

    - In January 1986 CSC was awarded a $133 million, five-year contract from the New York State Department of Social Services to serve as fiscal agent from the state's $6.5 billion-a-year Medicaid program. CSC will process Medicaid claims and upgrade the state's automated claims processing system.

    - In May 1985 CSC was awarded a $38.8 million four-year contract (including options) by the U.S. Department of Labor to provide coal miner's health claims processing services under the "black-lung program." CSC will also supply a telecommunications network and related terminal equipment to link government field offices with CSC's claims processing facility.

    - The division acts as servicing agent for the federal government's National Flood Insurance Program, operating one of the largest property insurance programs in the nation at its Lanham (MD) facility. The unit performs all of the policy, claims, marketing, and administrative functions of an insurance company, with the government assuming the underwriting risk.

    - In January 1986 the division ceased all development activities associated with its INFOCARE hospital information system. Maintenance services continue to be provided to three hospitals in which the system is installed.

  - CSC Comtec provides turnkey systems and associated support services to managed-health care companies.

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- ComCare is a Prime-based turnkey system for health maintenance organizations, preferred provider organizations, third-party administrators, and traditional indemnity carriers. ComCare includes modules for membership and billing, claims processing, utilization review, finance and accounting, and ancillary clinical functions. There are over 110 systems installed in 30 states.

- Network Services contributed 8% to total fiscal 1987 revenue. CSC has redirected the emphasis of its INFONET services from traditional computer timesharing to worldwide data communications and electronic messaging services.

  - Value-added network services are marketed to multinational commercial organizations that have a need for data communications among widespread facilities in the U.S. and abroad.

    - Offered is a high-performance packet-switch network that links customers' terminals, personal computers, minicomputers, and mainframe computers.

    - INFONET offers multiple protocols worldwide with asynchronous X.25, and 2780/3780 and 3270 bisynchronous and SNA/SDLC support.

    - INFONET maintains a staff of "in-country" personnel versed in local languages and business customs to interface with local regulatory agencies and to provide on-site user support in 29 countries.

    - In January 1988 CSC signed an exclusive five-year agreement to market Quotron Systems' QUOTDIAL financial information service to individual investors and small brokerage firms outside the U.S. as part of CSC's INFONET services.

  - IBM-based remote computing services are marketed primarily to the federal government for custom applications and overflow processing.

    - In July 1984 CSC was awarded a $32.3 million, five-year contract with the Army Military Personnel Center in Alexandria (VA) to provide INFONET remote computing services for Keystone, an automated system that supports Army recruitment and re-enlistment activities worldwide.

    - Other long-term processing contracts held by INFONET include:

      - A contract with the Naval Sea Systems Command for naval planning and repair activities (PERA).

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- Dedicated teleprocessing services for the Office of Finance, General Services Administration.
- Providing a work measurement system to the Social Security Administration.
- A contract with the Office of Child Support Enforcement, U.S. Department of Health and Human Services, to assist state governments to locate missing parents who owe their children child support.
- Timesharing and related services for the U.S. Navy Automated Civilian Management Information System.
- Services for tracking U.S. Army ammunition supplies.

- Complementary Services contributed 2% to CSC's total fiscal 1987 revenue.
  - The TACS Division provides income tax return processing services to professional tax preparers located in 15 Western and Midwestern states. Services are provided on a batch basis from data centers in Los Angeles and Bensonville (IL).
  - CSC Compufact provides turnkey systems and application software modules of its MAN-FACT II system to discrete manufacturers and distributors.
    - MAN-FACT II runs on Prime computers using Prime Information, Prime's version of the PICK operating system.
    - Production Modules include Bill of Materials, Material Requirements Planning, Master Scheduling, Inventory Control, Work Orders, Shop Floor Control, Capacity Planning, and Cost Accounting.
    - Procurement Modules include Order Placement and Receiving.
    - Financial Modules include General Ledger, Fixed Assets, Payroll, Accounts Payable/Receivable, Personnel Administration, and Financial Planning.
    - Marketing Modules include Sales Order Processing, Automatic Invoicing, Sales History and Forecasts, Sales Lead Tracking, and Model Configurator (for special orders).
    - Software only pricing ranges from $72,000 (six modules) to $228,000 (11 modules). Turnkey systems range from $125,000 to $500,000.
    - There are currently over 100 MAN-FACT II clients.

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INDUSTRY MARKETS

- A two-year summary of source of revenue follows ($ millions):

ITEM \ FISCAL YEAR	4/3/87		3/28/86	
	Revenue	Percent of Total	Revenue	Percent of Total
Federal Government				
- Department of Defense	$400.0	39%	$311.0	37%
- Civil Agencies	172.3	16	149.0	18
- NASA	122.0	12	126.9	15
Subtotal	$694.3	67%	$586.9	70%
Commercial	$184.2	18%	$120.7	14%
State and Local Government	$81.6	8%	$47.5	6%
International	$71.4	7%	$83.5	10%
Total	$1,031.5	100%	$838.6	100%

- Commercial revenue is derived from the utilities industry (telephone companies); from Fortune 500 companies in manufacturing, insurance, banking and finance; and from the retail, wholesale/distribution, medical, and services (primarily accountants) sectors.

- International revenue is derived from foreign governments, financial institutions, transportation companies, and manufacturers.

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GEOGRAPHIC MARKETS

- CSC's revenue and operating income by geographic region for the last two years has been as follows ($ millions):

ITEM \ FISCAL YEAR	4/3/87		3/28/86	
	Revenue	Percent of Total	Revenue	Percent of Total
United States				
- Revenue	$960.1	93%	$755.1	86%
- Operating income	73.3	95	57.8	96
International				
- Revenue	$71.4	7%	$83.5	14%
- Operating income	4.1	5	2.4	4

- CSC maintains offices in principal cities throughout the U.S. Operations in Canada, the United Kingdom, Belgium, Germany, the Netherlands, and Switzerland are through subsidiary companies.

- CSC owns minority interests in affiliates in Venezuela, Australia, France, and Sweden.

- INFONET services are provided through subsidiaries, affiliates, or representatives in Canada, Argentina, Brazil, Chile, Mexico, Uruguay, Japan, Korea, Hong Kong, Taiwan, Philippines, Singapore, Australia, New Zealand, South Africa, Denmark, Finland, Sweden, Norway, Belgium, West Germany, The Netherlands, Italy, Spain, Switzerland, France, and the United Kingdom.

COMPUTER HARDWARE AND SOFTWARE

- INFONET provides remote computing services from data centers in El Segundo (CA), Beltsville (MD), and Toronto, Canada. A total of five Unisys 1100/82 systems are installed, operating under CSC's proprietary operating system CSTS II. The Beltsville center also has IBM 3081-KX and 3084-QX systems installed.

  - CSC has developed its own communications network, using leased facilities, to provide remote computing services in North America, Australasia, Europe, and the Far East. International record carriers are used in other locations.

  - Local access to INFONET is provided throughout the U.S. by CSC's own network (over 150 cities), INWATS, and gateways to other domestic networks.

- Other data centers operated by CSC include:

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- Associated Credit Services' data center in Houston uses Amdahl V/8 and 5880 mainframes and DEC VAX 8650 and VAX-11/785 systems.

- Health and Administrative Services Division: An Amdahl 5867 is installed in Sacramento (CA) for Medicaid claims processing.

- Pittsburgh data center: General, hospital, and insurance processing services are offered on IBM computers.

- TACS Division: Magnuson computers are installed in Los Angeles and Bensonville (IL).

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COMPUTER SCIENCES CORPORATION
2100 East Grand Avenue
El Segundo, CA 90245
(213) 615-0311

William R. Hoover, President and Chairman
Public Corporation, NYSE, PSE
Total Employees: 15,600
Total Revenue, Fiscal Year End 3/28/86: $838,587,000

THE COMPANY

- Computer Sciences Corporation (CSC), founded in 1959, is the largest independent professional services company in the industry. Serving government and commercial clients, CSC provides requirements analysis, software development, systems engineering and integration, communications, systems engineering, turnkey computer-communications systems, and facilities management services. The company also provides industry-specific proprietary products and services for credit reporting, claims processing, health maintenance organizations, income tax preparation, and manufacturing and distribution applications. It also provides value-added communications and remote computing services via INFONET, CSC's international data communications network.

- Fiscal 1986 revenue reached $838.6 million, a 16% increase over fiscal 1985 revenue of $723.5 million. Net income was $23.9 million in fiscal 1986, compared to $27.7 million in fiscal 1985.

  - Net income for fiscal 1985 includes a non-recurring gain of $8.7 million from the sale of Paid Prescriptions, Inc., a wholly owned subsidiary that provided drug claims processing. The gain is net of reserves established for the planned phase-down of certain ancillary product and service offerings. Excluding this gain, fiscal 1986 net income increased 26% over fiscal 1985.

    - In December 1984 CSC sold Paid Prescriptions to Porex Technologies Corporation for $14.7 million and 559,906 shares of Porex common stock valued at $13.3 million.

    - During 1986 CSC sold the Porex common stock, resulting in a gain of approximately $1.3 million, which is included in operating income.

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- A five-year financial summary follows:

CSC
FIVE-YEAR FINANCIAL SUMMARY
($ thousands, except per share data)

ITEM \ FISCAL YEAR	3/28/86	3/29/85	3/30/84	4/1/83	4/2/82
Revenue	$838,587	$723,493	$712,224	$694,914	$630,174
. Percent increase from previous year	16%	2%	2%	10%	5%
Income before taxes	$ 42,764	$ 41,057*	$ 30,483	$ 32,524	$ 33,550
. Percent increase (decrease) from previous year	4%	35%	(6%)	(3%)	(29%)
Net income	$ 23,948	$ 27,718*	$ 18,266	$ 17,888	$ 17,781
. Percent increase (decrease) from previous year	(14%)	52%	2%	1%	(28%)
Primary earnings per share	$ 1.69	$ 2.02*	$ 1.32	$ 1.32	$ 1.31
. Percent increase (decrease) from previous year	(16%)	53%	-	1%	(28%)

* Fiscal 1985 results include a non-recurring gain of $9.5 million pre-tax, $8.7 million after tax, that contributed $0.63 to primary earnings per share.

- CSC provides its products and services through two major operating groups and several other units as follows:

  - The Systems Group, headquartered in Falls Church (VA), is the company's primary provider of technical services to the federal government. Services provided include system engineering and integration, the development of custom-designed computer-based systems and communications systems, operational support of clients' technical activities, clients' computer facilities management, and turnkey system development.

    - The Systems Division, headquartered in Falls Church (VA), designs and builds large information and communications systems for the military and other federal agencies and conducts high-technology studies and tests for advanced weapons and defense systems.

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- The Systems Sciences Division, headquartered in Silver Spring (MD), supports NASA's Goddard Space Flight Center's tracking and communication system, air traffic and control systems for the FAA, intelligence agencies, and other government activities.

- The Systems International Division, headquartered in Herndon (VA), markets and supports systems and consulting contracts in the Middle East, Asia, and South America.

- The Applied Technology Division, headquartered in Falls Church (VA), provides facilities management services, primarily for NASA; provides operations and maintenance services to aircraft and weapons test centers; and provides software development support to federal agencies.

- The Defense Systems Division, headquartered in Moorestown (NJ), designs and develops military systems for weapons control, logistics, wargaming, training, and command and control.

- The Energy Research Division, headquartered in Falls Church (VA), manages a contract with the Department of Energy at the Nevada nuclear test site.

- The Industry Services Group, headquartered in El Segundo (CA), provides industry-specific products and services for financial and health care applications through five independent business units.

  - Associated Credit Services, Inc., based in Houston (TX), provides consumer credit reporting and collection services to credit grantors and independent credit bureaus.

  - The TACS Division, based in Los Angeles (CA), processes income tax returns for tax preparers.

  - The Health and Administrative Services Division, headquartered in Sacramento (CA), performs Medicaid facilities management processing for state governments; manages the National Flood Insurance Program for the Federal Emergency Management Agency; and processes black-lung medical claims for the Department of Labor.

  - CSC Comtec, Inc., headquartered in Farmington Hills (MI), provides turnkey systems and services to health maintenance organizations.

  - Compufact, headquartered in Garden Grove (CA), provides turnkey systems and application software to manufacturers and distributors.

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- Commercial Professional Services operations, headquartered in El Segundo (CA), provide requirements analysis, system design, software development, system engineering and integration, communications systems engineering, and facilities management for non-federal organizations in industry and government. These activities are performed by:

  - Commercial Professional Services, based in El Segundo.
  - Computer Partners Inc., a wholly owned subsidiary based in Waltham (MA).
  - Communications Industry Services, based in Piscataway (NJ), which specializes in services to telephone companies.

- Computer Sciences Europe, headquartered in Brussels, manages the activities of subsidiaries in Belgium, the Netherlands, Switzerland, the United Kingdom, and West Germany. These units provide commercial professional services as described above, and market and support INFONET data communications services in Europe.

- CSC's INFONET operation, headquartered in El Segundo (CA), provides value-added network services, enhanced data communication services, and remote computing services.

  - The INFONET Division, headquartered in El Segundo, markets data communications services to commercial and international clients.
  - The Government Systems Division, headquartered in Arlington (VA), markets remote computing and data communications services to agencies of the federal government.
  - The Development and Operations Division, headquartered in El Segundo, supports R&D application development, data center operations, and maintenance of the network.

- CSC's current organization structure is shown in the exhibit.

- A two-year summary of CSC's sources of revenue by operating organization follows:

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EXHIBIT

CSC ORGANIZATION CHART

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CSC SOURCES OF REVENUE
($ millions)

ITEM \ FISCAL YEAR	3/28/86	3/29/85
• Systems Group		
- Federal government	$ 514.5	$ 443.6
- State and local government	7.0	7.1
- Commercial	7.1	3.5
- International	71.0	56.8
Subtotal	$ 599.6	$ 511.0
• Industry Services Group		
- Federal government	$ 34.4	$ 25.4
- State and local government	30.2	30.4
- Commercial	74.1	55.6
- International	-	-
- Operation sold	-	9.1
Subtotal	$ 138.7	$ 120.5
• INFONET and Commercial Professional Services (a)		
- Federal government	$ 38.0	$ 36.5
- State and local government	10.3	4.6
- Commercial	39.5	40.0
- International	12.5	10.9
Subtotal	$ 100.3	$ 92.0
Total Revenue	$ 838.6	$ 723.5

(a) Formerly referred to as CSC's Information Network Services Group

- The principal growth area of CSC over the last three years has been in revenues from the federal government, which increased 16% to $586.9 million in fiscal 1986, 8% to $505.5 million in fiscal 1985, and 19% to $468.5 million in fiscal 1984. Federal government revenue growth during the past year stemmed from ongoing programs, before benefit of a significant increase in new contract orders (totalling over $1.1 billion) received during the fiscal year.

  - Revenue from international markets in fiscal 1986 were $83.5 million, which includes an award of $19 million in settlement claims against the government of Iran for defaults on contracts with CSC in 1979. Excluding that claim settlement, international revenue decreased by 5% from the previous year. Strong revenue growth from the company's

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European activities largely offset a continuing revenue decline in the Middle East.

- In commercial markets, revenue increased 22% to $120.7 million in fiscal 1986, after excluding the fiscal 1985 revenue of Paid Prescriptions. The growth reflects revenue gains in CSC's credit reporting and tax processing services, and increases in professional contract services and data communications services, which offset a revenue decline in commercial remote computing (timesharing) services.

- Recent acquisitions made by CSC include the following:

  - In July 1986 CSC acquired Computer Partners Inc. (Waltham, MA). Terms of the cash purchase were not disclosed.

    . Computer Partners provides consulting and systems development professional services to Fortune 1000 corporations and other large users of computers.

    . Computer Partners' annual revenues exceed $20 million. The company had 300 employees at the time of the acquisition.

    . Computer Partners now operates as a wholly owned subsidiary of CSC within CSC's Commercial Professional Services operations.

  - In February 1986, CSC acquired all the shares of Comtec Inc. (Farmington Hills, MI). Terms of the cash purchase were not disclosed.

    . Comtec provides turnkey systems to health maintenance organizations. Its principal product is ComCare.

    . Comtec, with 1985 revenue of $10.3 million, now operates as a wholly owned subsidiary within CSC's Industry Services Group.

  - Effective December 27, 1985, CSC converted its preferred stock interest in Compufact (Garden Grove, CA) into common shares representing 80% ownership. CSC originally purchased the preferred shares in July 1984.

    . Compufact specializes in turnkey systems and software products for manufacturers and distributors. Its principal product is Man-Fact II, an integrated business planning and management system.

    . Compufact, with approximately 70 employees at the time of the acquisition, now operates as a subsidiary within CSC's Industry Services Group.

  - During 1985 and 1986, CSC or its subsidiary, Associated Credit Services, Inc. (ACS), made the following acquisitions for cash to increase the sales volume and market share of ACS's credit reporting and collections business:

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Acquired Company	Date
Credit Bureau of Springfield Springfield (MO)	6/85
Credit Bureau of Greater Kansas City Inc. Kansas City (MO)	9/85
Credit Bureau of Cincinnati Inc. Cincinnati (OH)	10/85
Whites Collection Agency Kansas City (MO)	4/86
Credit Bureau of St. Louis St. Louis (MO)	7/86
Accounts Management Corporation of Texas Houston (TX)	7/86
Associated Credit Services of Oklahoma Inc. Oklahoma City (OK)	9/86
Credit Adjustment Inc. Seguin (TX)	9/86
Accounts Management Corporation St. Louis (MO)	9/86

- Revenue for the six months ending September 26, 1986 reached $483.4 million, a 22% increase over $396.9 million for the same period in 1985. Net income was $13.8 million, compared to $10.1 million for the same period a year ago.

- As of March 1986 CSC had approximately 15,600 employees. As of September 1986, the company had 17,200 employees, segmented as follows:

Systems Group	11,200
Industry Services Group	4,050
INFONET	670
Commercial Professional Services	610
Other	670
	17,200

- Major competitors, by primary service/product area, include the following:

  - Federal government professional services: TRW, Hughes Aircraft, IBM Federal Systems, Planning Research Corporation (PRC), Logicon, Unisys (System Development Corporation), and BDM International.

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- Commercial professional services: Arthur Andersen, Electronic Data Systems (EDS), IBM, Martin Marietta, Computer Task Group, and AGS Computers.

- Value-added network services: General Electric Information Services Company (GEISCO) and McDonnell Douglas Network Systems (Tymnet).

- Remote computing services: Boeing Computer Services.

- Medicaid claims processing: Blue Cross/Blue Shield and EDS.

- Credit reporting services: TRW Information Services, Equifax, Chilton, and TransUnion.

- Health care systems: Jergovan and Blair, Inc.

- Manufacturing/distribution products: ASK Computer Systems and Triad Systems.

KEY PRODUCTS AND SERVICES

- Approximately 73% of CSC's fiscal 1986 revenue was derived from its various professional services, including systems development, consulting, and facilities management. An estimated 27% was derived from value-added network, remote computing, and batch processing services.

- The Systems Group derives its revenue principally from agencies and military services of the U.S. government. Clients also include foreign governments and other international organizations. In fiscal 1986 the Systems Group generated 72% of total corporate revenue, or $599.6 million. Revenue by market segment was derived as follows:

Federal defense	48%
Federal civil agencies	38
International	12
State and local government	1
Commercial	1
	100%

  - Over the last five years System Groups' defense business has grown at an annual rate of 19%. Revenue from civil agencies of the federal government increased 27% during fiscal 1986.

  - Professional services provided by this group include:

    . Development of custom designed computer-based systems and communications systems.

    . Operational support of clients' technical activities.

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- Management of clients' computer facilities, including the provision of all information processing requirements.

- Turnkey development of complete information systems, where CSC provides and integrates all of the hardware, software, training, and related elements required for delivery of operational systems.

- The Group has extensive experience in software development for aerospace and defense systems and systems engineering and technical assistance in computer communications, intelligence, aerospace, logistics, and related high technology fields.

- During fiscal 1986 the Systems Group won new government programs valued in excess of $1 billion, in addition to contracts successfully recompeted.

- Recent contract awards include the following:

  - In July 1986 CSC was awarded a $24 million, three-year contract (including options) from Pacific Missile Test Center (Pt. Mugu, CA) to provide engineering and technical services for the Electronic Warfare Directorate. Support includes systems analysis and development, product support engineering, electronic countermeasures technology, simulation, and fabrication of prototype electronic warfare systems.

  - In June 1986 CSC was awarded a $140 million, eight-year system integration contract (including options) from the U.S. Air Force Logistics Command (Wright-Patterson AFB, OH) to supply and install a Stock Control and Distribution System at Logistics Command headquarters and five Air Logistics Centers. Subcontractors are IBM (mainframe) and Applied Data Research (data base management system and software tools).

  - In June 1986 CSC was awarded a $6.8 million, five-year contract (including options) from the Naval Ocean Systems Center (San Diego) to provide engineering and technical support for the target data processing subsystem of the Integrated Undersea Surveillance System, a computer-embedded antisubmarine warfare system.

  - In June 1986 CSC was awarded an $11 million five-year subcontract from IBM/U.S. Air Force for work on the Shuttle Operations and Planning Complex (SOPC) at Colorado Springs. CSC will perform software conversion for flight control software systems, and provide computer facility operations and training for IBM and the SOPC computer complex. Options could increase the contract value to $19 million.

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- In May 1986 CSC was awarded a $27 million, five-year subcontract from TRW Defense Systems Group/U.S. Army to provide software and systems simulation support of all deployed Army Missile Command missile systems, such as Pershing II, Hawk, and Patriot.

- In March 1986 CSC was awarded a $55 million, four-and-one-year contract (including options) from the Army Information Systems Engineering Command (Fort Belvior, VA) to provide software development and maintenance support of Standard Army Multicommand Management Information Systems (STAMMIS), used Army-wide.

- In February 1986 CSC was awarded a $186.4 million contract from the Air Force Systems Command, Electronic Systems Division to supply and support an integrated office information system (LONS) for Command headquarters and 14 Air Force laboratories. The contract provides for the delivery of some 13,000 workstations and several thousand peripheral devices.

- In January 1986 CSC won an $11.3 million three-year contract by the U.S. Naval Telecommunications Command (Cheltenham, MD) to provide system engineering, logistics, engineering analysis, and configuration management services in support of Navy transmitter and receiving systems. CSC has provided services to this client since 1971.

- In January 1986 CSC won a $32.3 million, 28-month contract from the Air Force Flight Test Center (Edwards AFB, CA) to supply a computer system to process flight test data from telemetry and ground-based sensors. CSC will design the system and supply, integrate, and install the hardware and software at the flight test center.

- In September 1985 CSC won the recompetition for a $175.6 million five-year contract from the Environmental Protection Agency (EPA) to provide systems operations and software maintenance services to EPA headquarters, 10 regional operations, 14 laboratories, and certain state agencies. CSC is also assisting in the agency's multi-year modernization program to integrate mainframes, minicomputers, and microcomputers with nationwide telecommunications links.

- In August 1985 CSC won a $282 million, eight-year contract (including options) from the U.S. Customs Service to supply and operate a Consolidated Data Network (CDN) for the Customs Service, combining law enforcement and commercial telecommunications functions. The network could be expanded to include other operations of the U.S. Treasury Department. Fully operational, CDN will serve 7,500 locations worldwide and provide over 30,000 connections to data terminals.

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- In July 1985 CSC was awarded an $80 million, nine-year subcontract through IBM to supply software rehosting, integration, installation, maintenance, and operational support related to the replacement of host computers at 20 Federal Aviation Agency air route traffic control centers.

- During fiscal 1986 CSC successfully completed a six-year contract, valued at more than $275 million, to provide a nationwide network information system (Saudi Arabian Ministry of Interior System) developed by CSC for the Saudi Arabian government.

- The Industry Services Group contributed 17% to total corporate revenue during fiscal 1986. This group provides industry-specific products and services through five business units as follows:

  - Associated Credit Services, Inc. (ACS) is one of the nation's leading consumer credit reporting network services and one of CSC's most profitable, high-growth operating units. Since CSC acquired ACS in 1982, ACS' annual revenue has increased from $25 million to $58 million in fiscal 1986.

    - ACS maintains credit records on more than 110 million consumers and serves approximately 30,000 credit grantors nationwide.

    - The network includes more than 160 independent credit bureaus in 27 states. ACS also owns and operates credit bureaus in 18 cities and owns 20 collection agencies.

    - Membership includes both company-owned bureaus and "associates" that use the network under contract. Member bureaus' consumer credit information is stored and processed at a Houston data center.

    - On-line credit reports are ordered and bought by credit granters (retailers, financial institutions, hospitals and doctors, or anyone else who lends money or sells merchandise against later repayment) who contract with the member credit bureaus.

    - Credit bureaus pull the information from a central file via communications terminals or microcomputers. There are about 7,000 terminals/PCs connected to the network.

    - During 1986 ACS significantly expanded its collections business through the acquisition of six firms in this field.

  - TACS Division provides income tax return processing services to professional tax preparers located in 15 states. Services are provided on a batch basis from data centers in Los Angeles and Bensonville (IL).

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- The Health and Administrative Services Division provides insurance and medical claims processing and related services.

  - In January 1986 CSC was awarded a $133 million five-year contract from the New York State Department of Social Services to serve as fiscal agent from the state's $6.5 billion-a-year Medicaid program. CSC will process Medicaid claims and upgrade the state's automated claims processing system.

  - The division also has Medicaid contracts with California, Colorado, and Alaska.

  - In May 1985 CSC was awarded a $38.8 million four-year contract (including options) by the U.S. Department of Labor to provide coal miners' health claims processing services under the "black-lung program." CSC will also supply a telecommunications network and related terminal equipment to link government field offices with CSC's claims processing facility.

  - The division acts as servicing agent for the federal government's National Flood Insurance Program, operating one of the largest property insurance programs in the nation at its Lanham (MD) facility. The unit performs all of the policy, claims, marketing, and administrative functions of an insurance company, with the government assuming the underwriting risk.

  - In January 1986 the division ceased all development activities associated with its INFOCARE hospital information system. Maintenance services continue to be provided to three hospitals in which the system is installed.

- CSC Comtec provides ComCare turnkey systems to health maintenance organizations. ComCare is a Prime-based system that includes modules for membership and billing, claims processing, utilization review, finance and accounting, and ancillary clinical functions. There are over 110 systems installed in 30 states.

- Compufact provides turnkey systems and application software modules of its MAN-FACT II system to discrete manufacturers and distributors.

  - MAN-FACT II runs on Prime computers using Prime Information, Prime's version of the PICK operating system.

  - Production Modules include Bill of Materials, Material Requirements Planning, Master Scheduling, Inventory Control, Work Orders, Shop Floor Control, Capacity Planning, and Cost Accounting.

  - Procurement Modules include Order Placement and Receiving.

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- Financial Modules include General Ledger, Fixed Assets, Payroll, Accounts Payable/Receivable, Personnel Administration, and Financial Planning.
- Marketing Modules include Sales Order Processing, Automatic Invoicing, Sales History and Forecasts, Sales Lead Tracking, and Model Configurator (for special orders).
- Software only pricing ranges from $72,000 (six modules) to $228,000 (11 modules). Turnkey systems range from $125,000 to $500,000.
- There are currently over 80 MAN-FACT II clients.

- CSC has redirected the emphasis of its INFONET services from traditional computer timesharing to worldwide data communications and electronic messaging services.
  - Value-added network services are marketed to multinational commercial organizations that have a need for data communications among widespread facilities in the U.S. and abroad.
    - Offered is a high-performance packet-switch network that links customers' terminals, personal computers, minicomputers, and mainframe computers.
    - INFONET offers multiple protocols worldwide with asynchronous X.25, and 2780/3780 and 3270 bisynchronous and SNA/SDLC support.
    - INFONET maintains a staff of "in-country" personnel versed in local languages and business customs to interface with local regulatory agencies and to provide on-site user support in 27 countries.
  - Network service offerings/announcements include:
    - NOTICE, an electronic messaging service.
    - NOTICE/TELEX, CSC's telex discount delivery service.
    - NOTICE/PC, a software product introduced in March 1986, is used in conjunction with INFONET to provide personal computer users easy transfer of spreadsheets, word processing files, and application data files to other PCs.
    - An agreement with Simware, Inc. expands INFONET's 3270 service to include personal computer access to 3270 hosts. This allows IBM clients to integrate personal computers worldwide into their SNA environment.

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  - . An agreement with Orion Software, Inc. allows Orion to sell INFONET network services with Orion software. The full service offering, called Orionet, will provide specialized communications for distributed IBM System 34/36/38 networking.

  - . INFONET has also been selected by TIL Systems Ltd., a Canadian-based company, to provide its on-line services to the financial brokerage and other multinational industries.

  - . By linking the French Minitel videotex network to New York and Los Angeles, INFONET has given companies in the U.S. access to a full range of French videotex services. INFONET is the first to offer a United States connection with the highly popular French service.

- IBM-based remote computing services are marketed primarily to the federal government for custom applications and overflow processing.

  - . In July 1984 CSC was awarded a $32.3 million, five-year contract with the Army Military Personnel Center in Alexandria (VA) to provide INFONET remote computing services for Keystone, an automated system that supports Army recruitment and re-enlistment activities worldwide.

  - . Other long-term processing contracts held by INFONET include:

    - A contract with the Naval Sea Systems Command for naval planning and repair activities (PERA).

    - Dedicated teleprocessing services for the Office of Finance, General Services Administration.

    - Providing a work measurement system to the Social Security Administration.

    - A contract with the Office of Child Support Enforcement, U.S. Department of Health and Human Services, to assist state governments to locate missing parents who owe their children child support.

    - Timesharing and related services for the U.S. Navy Automated Civilian Management Information System.

    - Services for tracking U.S. Army ammunition supplies.

- Professional services are provided to commercial and local government clients as follows:

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- In January 1986 CSC was awarded a multimillion dollar contract by AT&T to assist in the development of AT&T's line of office automation software products. CSC will provide system software design, turnkey software development, market research, and the use of certain software already developed by CSC. The purpose is to facilitate integrated applications involving a wide range of workstations, terminals, print devices, and voice and data services.

- Other ongoing contracts include:

  - Technical management of the computerization of Britain's income tax withholding system, called Pay As You Earn (PAYE). Estimated to cost over $340 million, the project involves the records of 27 million taxpayers and 18,000 terminals linked by an X.25 packet switch network to 11 processing centers. CSC is leading a team of government and contractor personnel in hardware procurement, system development, and implementation.

  - Planning and managing a major upgrade of the state of New Jersey's data processing and telecommunications operations. CSC is establishing a data processing and communications facility to serve as the hub of an integrated statewide information nework linking five large data centers operated by state agencies. The project involves consolidation of existing multiple voice and data networks--and providing for future image transmissions--into one integrated network.

  - Software development and maintenance for AT&T's Trunks Integrated Records Keeping System (TIRKS). One of the largest computer applications in commercial use, this circuit provisioning system contains more than 350 data bases and 18,000 software modules.

- Computer Partners provides custom programming, systems consulting, design and implementation services, and education and training to Fortune 1000 corporations and other large computer users (see INPUT Profile on Computer Partners dated June 1986).

INDUSTRY MARKETS

- A two-year summary of source of revenue follows ($ millions):

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ITEM / FISCAL YEAR	3/28/86 Revenue	3/28/86 Percent of Total	3/29/85 Revenue	3/29/85 Percent of Total
Federal Government				
- Department of Defense	$311.0	37%	$277.1	39%
- NASA	126.9	15	110.4	15
- Civil Agencies	149.0	18	118.0	16
	$586.9	70%	$505.5	70%
State and Local Government	$ 47.5	6%	$ 42.1	6%
Commercial	$120.7	14%	$ 99.1	15%
International	83.5	10%	67.7	9%
Operation sold	-	-	9.1	-
Total	$838.6	100%	$723.5	100%

- Commercial revenue is derived from the utilities industry (telephone companies); from Fortune 500 companies in manufacturing, insurance, banking and finance; and from the retail, wholesale/distribution, medical, and services (primarily accountants) sectors.

- International revenue is derived from foreign governments, financial institutions, transportation companies, and manufacturers.

GEOGRAPHIC MARKETS

- CSC's revenue and operating income by geographic region for the last two years has been as follows ($ millions):

ITEM / FISCAL YEAR	3/28/86 Revenue	3/28/86 Percent of Total	3/29/85 Revenue	3/29/85 Percent of Total
United States				
. Revenue	$755.1	86%	$655.8	85%
. Operating income	57.8	96	44.9	94
International				
. Revenue	83.5	14	67.7	15
. Operating income	2.4	4	2.7	6

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- CSC maintains offices in principal cities throughout the U.S. Operations in Canada, the United Kingdom, Belgium, Germany, the Netherlands, and Switzerland are through subsidiary companies.

- CSC owns minority interests in affiliates in Venezuela, Australia, France, and Sweden.

- INFONET services are provided through subsidiaries, affiliates, or representatives in Canada, Argentina, Brazil, Mexico, Uruguay, Japan, Korea, Hong Kong, Taiwan, Philippines, Singapore, Australia, New Zealand, South Africa, Denmark, Finland, Sweden, Norway, Belgium, West Germany, The Netherlands, Italy, Spain, Switzerland, France, and the United Kingdom.

COMPUTER HARDWARE AND SOFTWARE

- INFONET provides remote computing services from data centers in El Segundo (CA), Beltsville (MD), and Toronto, Canada. A total of five Sperry 1100/82 systems are installed, operating under CSC's proprietary operating system CSTS II. The Beltsville center also has IBM 3081-KX and a 3084-QX systems installed.

  - CSC has developed its own communications network, using leased facilities, to provide remote computing services in North America and Europe. International record carriers are used in other locations.

  - Local access to INFONET is provided throughout the U.S. by CSC's own network (over 150 cities), INWATS, and gateways to other domestic networks.

- Other data centers operated by CSC include:

  - Associated Credit Services' data center in Houston uses Amdahl V/8 and 5880 mainframes and DEC VAX 8650 and VAX-11/785 systems.

  - Health and Administrative Services Division: An Amdahl 5867 is installed in Sacramento (CA) for Medicaid claims processing.

  - Pittsburgh data center: General, hospital, and insurance processing services are offered on IBM computers.

  - TACS Division: Magnuson computers are installed in Los Angeles and Bensonville (IL).

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FINANCIAL UPDATE TO PROFILE DATED JANUARY 1984*

COMPUTER SCIENCES CORPORATION
2100 East Grand Avenue
El Segundo, CA 90245
(213) 615-0311

William R. Hoover, President and Chairman
Public Corporation, NYSE, PSE
Total Employees: 14,100
Total Revenue, Fiscal Year End 3/30/85: $723,493,000

CSC
FIVE-YEAR FINANCIAL SUMMARY
($ thousands, except per share data)

FISCAL YEAR / ITEM	3/29/85	3/30/84	4/1/83	4/2/82	4/3/81
Revenue	$723,493	$712,224	$694,914	$630,174	$600,593
. Percent increase from previous year	2%	2%	10%	5%	33%
Income before taxes	$ 41,057	$ 30,483	$ 32,524	$ 33,550	$ 47,096
. Percent increase (decrease) from previous year	35%	(6%)	(3%)	(29%)	9%
Net income	$ 27,718	$ 18,266	$ 17,888	$ 17,781	$ 24,725
. Percent increase (decrease) from previous year	52%	2%	1%	(28%)	9%
Primary earnings per share	$ 2.02	$ 1.32	$ 1.32	$ 1.31	$ 1.82
. Percent increase (decrease) from previous year	53%	-	1%	(28%)	7%

- 1985 income before taxes includes a gain of $9.5 million from the sale of Paid Prescriptions, Inc., net of charges for the phase-down of certain operations.
  - In December 1984 CSC sold Paid Prescriptions, a wholly owned subsidiary that provides prescription drug claims processing, to Porex Technologies Corporation for $14.7 million and 559,906 shares of Porex common stock valued at $13.3 million.
  - Also in December 1984 CSC established reserves for the planned phase-down of certain products and services for a limited number of markets.

*Replaces Financial Update of August 1984

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- Recent acquisitions include the following:
  - In June 1985 Associated Credit Services, Inc., a Houston-based credit reporting subsidiary of CSC, acquired Credit Exchange, Inc. of Springfield (MO). Terms of the acquisition were not disclosed.
  - In September 1984 Associated Credit Services agreed to purchase the credit reporting and collection business of the Merchants Association of Indianapolis (MAI). Terms of the acquisition were not disclosed.
    - MAI serves more than 2,000 retail stores, banks, and other credit grantors in 33 central and western counties of Indiana.
  - In July 1984 CSC purchased an equity interest in COMPUFACT of Garden Grove (CA).
    - COMPUFACT specializes in applications software products and turnkey systems for the manufacturing and distribution industries. As of December 1984, the company had 75 employees and estimated annual revenue of $4 million.
    - CSC acquired preferred shares convertible to 80% of the outstanding common shares of COMPUFACT and has an option to purchase the remaining 20% of outstanding common shares by 1989.
- Revenue for the first quarter of fiscal 1986 reached $187.6 million, an 8% increase over $173.9 million reported for the first quarter of fiscal 1985. Net income reached $5.2 million, compared to $4.6 million for the same period a year ago.

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SOURCE OF REVENUE

- A two-year summary of CSC's source of revenue by operating group follows:

CSC SOURCE OF REVENUE
($ millions)

ITEM \ FISCAL YEAR	3/29/85	3/30/84
• Systems Group		
- Federal government	$447.1	$419.8
- State and local government	7.1	5.9
- Commercial	3.5	4.5
- International	53.3	81.8
Subtotal	$511.0	$512.1
• Information Network Services Group		
- Federal government	$36.5	$34.6
- State and local government	4.6	3.5
- Commercial	40.0	44.1
- International	10.9	13.0
- Operations sold and other reduction	-	2.9
Subtotal	$92.0	$98.1
• Industry Services Group		
- Federal government	$25.4	$14.0
- State and local government	30.4	31.4
- Commercial	55.6	45.0
- International	-	-
- Operations sold and other reduction	9.1	11.6
Subtotal	$120.5	$102.5
Total Revenue	$723.5	$712.2

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- A three-year summary of CSC's source of revenue by major market sectors follows:

	3/29/85	3/30/84	4/1/83
Federal government	70%	65%	57%
State and local government	6	6	8
Commercial	15	16	17
International	9	13	18
	100%	100%	100%

- CSC has redirected the emphasis of its INFONET services from traditional computer timesharing to providing worldwide data communications and enhanced electronic mail services, as well as remote computing and distributed processing.

  - CSC's communications network currently serves some 400 cities worldwide. It links 19 major industrialized countries through dedicated circuits and serves an additional 51 countries via international record carriers.

- Recent contracts/announcements include the following:

  - In August 1985 CSC won a system integration contract with the U.S. Custom Service to supply and operate a consolidated data network.

    . The contract has an initial value of $48.5 million and could be worth $282 million over 96 months if all options are exercised.

    . The network will serve the data communications needs of the Custom Service, and could be expanded to include certain operations of the Internal Revenue Service and a number of other operations of the Treasury Department.

    . CSC will establish a network operations and management center at its Northern Virginia facilities. It will also install major switching centers at company facilities in Seattle, Houston, Boston, Chicago, and at government sites in Miami, Minneapolis, and San Diego.

    . The fully operational consolidated data network would serve 7,500 locations worldwide and support more than 30,000 connections to data terminals. Sufficient capacity is planned to sustain a nine-fold growth in traffic volume over the eight-year period of the contract.

    . The contract is the largest in CSC's history.

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- On July 19, 1985, CSC received a contract to supply and install a central control and monitoring system at AT&T Bell Laboratories in Murray Hills (NJ). The system will be based on CSC's Info-Scan product and will control energy use, environmental conditions, fire alarm facilities, and access to buildings and rooms of the AT&T facility. The AT&T system will be the largest commercial application of Info-Scan to date.

- On July 18, 1985, CSC was awarded a $50 million subcontract (including options) from Boeing Aerospace Company for the development of key software elements for the Peace Shield air-defense system for Saudi Arabia. The agreement consists of a $21.9 million subcontract for the development of command management, mission monitoring, planning resource management, and bilingual applications software. Undefined future activities have the potential to increase the contract by an additional $28 million.

- In June 1985 CSC was awarded a $25.5 million, five-year contract (including options) to provide engineering services, including flight, ground, and mechanical systems engineering; instrumentation development, test, and evaluation; range safety analysis; and mathematical modeling, to NASA's Wallops Flight Facility. CSC has provided services to this unit since 1970.

- In May 1985 CSC was awarded a $38.8 million, four-year contract, including options, by the U.S. Department of Labor to provide coal miners' health claim processing services under the "black-lung program." CSC will also supply a telecommunications network and related terminal equipment to link government field offices with CSC's claims processing facility.

- In April 1985 CSC was awarded a $32.7 million, three-year contract (including options) by NASA's Goddard Space Flight Center to provide software system design, implementation, and maintenance services to increase the capabilities of the Network Control Center (NCC) for the Tracking and Data Relay Satellite System. CSC designed and developed the NCC system under a prior contract.

- In January 1985 CSC was awarded a $17.2 million, four-and-one-half year contract (including options) by the Colorado Department of Social Services to serve as the fiscal intermediary for Colorado's Medicaid program. CSC will install and operate an automated Medicaid management information system, process claims, and distribute claims payments.

- In December 1984 CSC was awarded an $18.8 million, four-year contract (including options) by the General Services Administration (GSA) Region 10 to provide computer-related support services to GSA and other federal agencies in Washington, Oregon, Idaho, and Alaska.

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- In June 1984, CSC was awarded a $44.8 million, four-year contract (including options) by the GSA Region 4 to provide data processing support services to GSA and other federal agencies in eight southeastern states.

- In November 1984, CSC was awarded a $12.4 million, three-year contract (including options) by the New Jersey State Office of Telecommunications & Information Systems to plan and manage a major revamping of the state's computing operations.

- In October 1984 CSC was awarded a $3.7 million, four-year contract (including options) by Dade County (FL) as initial funding for CSC to supply and operate an automated cargo clearance system for Miami International Airport and the Port of Miami. It will be the first system of its kind in the U.S.

- Also in October 1984 CSC was awarded a $14.1 million, three-year subcontract to provide IBM with services in system and software engineering, software development, testing, and evaluation. The Federal Aviation Administration (FAA) has selected the IBM/CSC team for the design competition phase of the procurement for an Advanced Automation System for improved air traffic control.

  - In July 1985 the FAA announced it had selected the IBM/CSC team to replace the agency's host computer systems at 20 air route traffic control centers. As a team member, CSC will be responsible for software re-hosing, integration and installation, and future software maintenance and support, under a subcontract with an expected value of $80 million if all options are exercised.

- In July 1984 CSC was awarded a $32.3 million, five-year contract with the Army Military Personnel Center in Alexandria (VA) to provide INFONET remote computing services for Keystone, an automated system that supports Army recruitment and re-enlistment activities worldwide.

- In June 1984 CSC was awarded a $35 million, six-year subcontract with RCA Corporation to provide software engineering services to the U.S. Navy in the development of an Aegis combat system for the DDG 51 Arleigh Burke-class destroyer. CSC has been the software enginering subcontractor to RCA through 14 years of research, development, and testing of the advanced Aegis air-defense weapon system.

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FINANCIAL UPDATE TO HIGHLIGHT DATED JANUARY 1984

COMPUTER SCIENCES CORPORATION
650 North Sepulveda Boulevard
El Segundo, CA 90245
(213) 615-0311

William R. Hoover, President and Chairman
Public Corporation, NYSE
Total Employees: 12,900
Total Revenue, Fiscal Year End 3/30/84: $712,224,000

CSC
FIVE-YEAR FINANCIAL SUMMARY
($ thousands, except per share data)

ITEM \ FISCAL YEAR	3/30/84	4/1/83	4/2/82	4/3/81	3/28/80
Total revenue	$712,224	$694,914	$630,174	$600,593	$452,634
. Percent increase from previous year	2%	10%	5%	33%	32%
Income before taxes and extraordinary credit	$ 30,483	$ 32,524	$ 33,550	$ 47,096	$ 43,234
. Percent increase (decrease) from previous year	(6%)	(3%)	(29%)	9%	52%
Net income	$ 18,266	$ 17,888	$ 17,781	$ 24,725	$ 22,698
. Percent increase (decrease) from previous year	2%	1%	(28%)	9%	60%
Primary earnings per share	$ 1.32	$ 1.32	$ 1.31	$ 1.82	$ 1.70
. Percent increase (decrease) from previous year	0%	1%	(28%)	7%	59%

- During fiscal 1984 CSC was reorganized into three operating groups as follows:

  - The Systems Group is the company's primary provider of technical services to the federal government. Services provided include system engineering and integration, the development of custom-designed computer-based systems and communications systems, operational support of clients' technical activities, clients' computer facilities management, and turnkey system development.

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- The Information Network Services Group consolidates the company's INFONET remote computing activities, value-added communications services, processing to the distribution and manufacturing industries, commercial contract services, and professional services in system development and facilities management.

- The Industry Services Group provides consumer credit reports and related services to credit grantors and independent credit bureaus, processes income tax returns for tax preparers, markets a turnkey system for hospitals, and performs claims processing and related services for organizations in the public and private sectors.

SOURCE OF REVENUE

- A two-year summary of CSC's source of revenue by operating group follows:

CSC SOURCE OF REVENUE
($ millions)

ITEM / FISCAL YEAR	3/30/84	4/1/83
• Systems Group (a)		
- Federal government	$420.9	$362.0
- State and local government	5.9	16.5
- Commercial	5.4	3.5
- International	81.8	92.7
Subtotal	$514.0	$474.7
• Information Network Services Group (a)		
- Federal government	$ 30.8	$ 30.9
- State and local government	3.5	3.8
- Commercial	43.3	48.7
- International	13.0	32.5
- Operations sold and other reduction (b)	2.8	18.6
Subtotal	$ 93.4	$134.5
• Industry Services Group		
- Federal government	$ 16.8	$ -
- State and local government	31.4	37.1
- Commercial	56.6	48.6
- International	-	-
Subtotal	$104.8	$ 85.7
Total Revenue	$712.2	$694.9

(a) Includes allocable portion of CSC Computer Sciences Europe.
(b) Includes accounting-services operations sold in fiscal 1984, net of a $3 million claim payment in fiscal 1984.

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- A three-year summary of CSC's source of revenue by major market sectors follows:

	3/30/84	4/1/83	4/2/82
Federal government	65%	57%	57%
State and local government	6	8	9
Commercial	16	17	16
International	13	18	18
	100%	100%	100%

- Revenue for the first quarter of fiscal 1985 ending June 29, 1984, was $173.9 million, compared with $174.3 million for the first quarter of fiscal 1984. Net income for the period was $4.6 million as compared with $2.6 million a year ago.

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COMPUTER SCIENCES CORPORATION
650 North Sepulveda Boulevard
El Segundo, CA 90245
(213) 615-0311

William R. Hoover, President and Chairman
Public Corporation, NYSE
Total Employees: 13,500
Total Revenue, Fiscal Year End 4/1/83: $694,914,000

THE COMPANY

- Computer Sciences Corporation (CSC), founded in 1959, is the largest independent professional services company in the industry. Serving government and commercial clients, CSC provides systems engineering and development, communications engineering, facilities management, and turnkey computer-communications systems. Processing services are offered through INFONET, an international network service, and from several other operations for tax processing, distribution services, and credit reporting services.

- CSC's fiscal 1983 revenue was $694.9 million, an increase of 10% over 1982 revenue of $630.2 million. Pretax income was $32.5 million, a 3% decline from the prior year. Net income and earnings per share remained almost flat at $17.9 million and $1.32, respectively.

CSC
FIVE-YEAR FINANCIAL SUMMARY
($ thousands, except per share data)

ITEM \ FISCAL YEAR	4/1/83	4/2/82	4/3/81	3/28/80	3/30/79
Total revenue	$694,914	$630,174	$600,593	$452,634	$342,013
. Percent increase from previous year	10%	5%	33%	32%	24%
Income before taxes and extraordinary credit	$ 32,524	$ 33,550	$ 47,096	$ 43,234	$ 28,360
. Percent increase (decrease) from previous year	(3%)	(29%)	9%	52%	8%
Net income	$ 17,888	$ 17,781	$ 24,725	$ 22,698	$ 14,198
. Percent increase (decrease) from previous year	1%	(28%)	9%	60%	1%
Primary earnings per share	$ 1.32	$ 1.31	$ 1.82	$ 1.70	$ 1.07
. Percent increase (decrease) from previous year	1%	(28%)	7%	59%	7%

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- Revenue by business segment was:

CSC SEGMENT REVENUE
($ millions)

ITEM \ FISCAL YEAR	4/1/83	4/2/82	4/3/81	3/28/80	3/30/79
Contract Services					
. Revenue	$527.2	$477.7	$448.5	$329.6	$249.5
- Percent increase from previous year	10%	7%	36%	32%	26%
. Operating income*	$ 40.1	$ 32.0	$ 34.7	$ 24.7	$ 18.9
- Percent increase (decrease) from previous year	25%	(8%)	40%	31%	0%
Data Services					
. Revenue	$167.7	$152.5	$152.1	$123.0	$ 92.5
- Percent increase from previous year	10%	0%	24%	33%	18%
. Operating income*	$ 6.8	$ 11.8	$ 23.1	$ 24.8	$ 18.1
- Percent increase (decrease) from previous year	(42%)	(49%)	(7%)	37%	10%

*Operating Income: income before corporate overhead, interest, and taxes.

- CSC's two major business segments, Contract Services and Data Services, each achieved a 10% growth rate in fiscal 1983. Growth in Contract Services was attributed to increased sales to the U.S. Department of Defense and organizations in the Middle East. Increased revenue in Data Services was due to the inclusion of a full year's revenue from Associated Credit Services.

- Operating income from the two segments and their effect on total corporate performance has fluctuated over the last few years.

  - Operating income from Contract Services was up to near normal levels in fiscal 1983 (a 7.6% margin versus previous levels of 9%). Although income improved, it was less than expected due to lower margins on Medicaid activities caused by a reduction in claims volume in California and the termination of a contract in Tennessee. The decline in fiscal 1982 resulted primarily from cost overruns on certain fixed-price contracts for energy control systems and, secondarily, from substantially higher research and development costs related to a new proprietary hospital system.

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- Operating income from Data Services has fallen steadily since fiscal 1980. Operating margins were 4% in fiscal 1983 compared to a 20% margin achieved in 1980. Lower profits were attributed to:

  - Revenue declines from INFONET services.

  - High research and development costs associated with the completion of a major upgrade of hardware and software for INFONET.

  - Losses from the business accounting divisions purchased from Itel in 1979.

- The business accounting, payroll, and on-line services divisions, a drain on profits since their acquisition from Itel, were sold to Automatic Data Processing in September 1983. The units had combined revenue of about $8 million. Terms of sale were not disclosed. CSC retained and will continue to operate the income tax processing service and a data center in Pittsburgh included in the 1979 acquisition.

- In order to regain previous growth and income levels, CSC has established the following objectives:

  - Concentrate on the federal sector of Contract Services where high growth rates are expected.

  - Hold costs down in INFONET and make additional reductions if necessary.

  - Expand INFONET services in data communications, office automation, and microcomputer-based services.

  - Increase marketing efforts of Contract Services in international sectors, particularly the Middle East and Latin America.

- Legal settlement of a three-year-old dispute with the federal government involving a contract CSC held with the General Services Administration was accomplished in July 1983. The case was dismissed with prejudice (meaning it cannot be brought against CSC again) of all remaining counts contained in a 1980 indictment against CSC. At the time of dismissal, the government and the company agreed to settle all civil and administrative claims with the payment of $2,950,000 by CSC. The claims and the indictment stem from a 1972 teleprocessing contract performed for GSA. CSC's revenue from the contract was approximately $158 million.

- For the six months ended September 30, 1983, CSC reported revenue of $358.7 million, an 8% increase over $331 million in the previous period. Net income was $7 million, down 25% from $9.4 million. Reduced income was attributed to the payment of $3 million to the federal government for settlement of the legal dispute and to a cost increase over the year-ago period of more than $1 million in legal fees associated with the case.

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- Profits should improve considerably for CSC now that the GSA case has been settled and several unprofitable operations have been sold.

- INPUT expects higher growth levels in Contract Services in fiscal 1984 and some improvement in Data Services profits if costs can be held and revenue increased.

- In January 1982 CSC acquired the Houston-based Associated Credit Services, Inc. (ACS) for $19.9 million in cash. ACS, now a CSC subsidiary, provides credit reporting and related services and had annual revenue of about $25 million at the time of acquisition. In August 1982 ACS acquired the credit reporting and collection services divisions of Mid-Iowa Credit Bureau, Ltd.

- CSC reorganized its major processing operating units in August 1983. The new organization, shown in Exhibit A, consists of the INFONET Group, Systems Group, and five division/subsidiary operations.

  - INFONET Group.

    . INFONET Government Systems Division: markets remote computing and data communications services to agencies of the federal government.

    . Business Services Division: markets remote computing, data communications, and professional services (including system integration and facilities management) to commercial clients. Also provides accounting/inventory services to the distribution industry, and income tax return processing.

    . INFONET Communications Industry Services Division: markets remote computing, professional services, and data communications services to AT&T, Western Electric, and independent telephone companies.

    . INFONET Development and Operations Division: supports R&D application development, data center operations, and maintenance of the network.

    . INFONET International Division: responsible for INFONET-related support of CSC affiliates and licensees in foreign countries.

  - Systems Group.

    . Systems Division: designs and builds large information and communications systems for the military and other federal agencies.

    . Systems Sciences Division: supports NASA's Goddard Space Flight Center's tracking and communication system, air traffic

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EXHIBIT A

(Effective August 1983)

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and control systems for the FAA, and other teleprocessing engineering support services.

  - Systems International Division: markets and supports systems and consulting contracts in the Middle East, Asia, and South America.

  - Applied Technology Division: provides facilities management services, primarily for NASA; provides range operations and maintenance services; and provides software development support to federal agencies.

  - Defense Systems Division: designs and develops military systems for weapons control, logistics, wargaming, training, and command and control.

  - Energy Research Division: manages a contract with the Department of Energy at the Nevada nuclear test site.

- Medical Systems Division: markets an on-line turnkey system for hospitals.

- Paid Prescriptions, Inc.: processes pharmacies' claims for prescription drugs.

- Government Health Services Division: performs Medicaid facilities management contracts and manages a large contract for the National Flood Insurance Program.

- Computer Sciences Europe: markets INFONET and professional services in Europe.

- Associated Credit Services, Inc.: provides credit reporting and other related services.

• Competition, by major business segments, comes from:

- TRW, Hughes, RCA, IBM Federal, Litton, System Development Corporation, Planning Research Corporation, Bendix, Kentron, E-Systems, and Logicon for professional services contracts.

- Electronic Data Systems, System Development, and MCAUTO for Medicaid contracts.

- Boeing Computer Services, Martin Marietta Data Systems, Tymshare, MCAUTO, Automatic Data Processing, GEISCO, and Control Data Corporation for remote computing services.

- TRW Information Services, Equifax, and Chilton Corporation for credit reporting services.

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KEY PRODUCTS AND SERVICES

- Contract Services revenue is derived from U.S. federal government and international professional services contracts provided by the Systems Group, professional services contracts in Europe managed by the Computer Sciences Europe unit, facilities management contracts held by the Government Health Services Division, and the Infocare hospital system marketed by the Medical Systems Division. In fiscal 1983 Contract Services generated 76% of total corporate revenue, or $527.2 million. Revenue by market segment came from:

	Percent of Total	Revenue ($ millions)
Federal government	69%	$362.0
International	18	94.5
State and local government	11	56.8
Commercial	2	13.9
	100%	$527.2

  - Services provided include:
    - Development of custom-designed computer-based systems and communications systems.
    - Operational support of clients' technical activities.
    - Management of clients' computer facilities, including the provision of all information processing requirements.
    - Turnkey development of complete information systems, where CSC provides and integrates all of the hardware, software, training, and related elements required for delivery of operational systems.
  - Contract Services are provided under a variety of contract types. Revenue by type of contract for each of the last three years is summarized as follows:

	FY 1983	FY 1982	FY 1981
Cost-based	61%	60%	60%
Fixed-price	24	20	19
Time and materials, and other	15	20	21
	100%	100%	100%

  - In calendar 1982 CSC announced new orders, contract extensions, and successful recompetitions valued at $430 million over a multiyear

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period if all options are exercised. Similar awards announced in calendar 1983 should approximate $700 million in new and recurring business. Recent multimillion-dollar contract awards include:

- A contract with the U.S. Air Force Flight Test Center, Edwards AFB, for operations, maintenance, and engineering support to the Edwards Flight Test Center and Utah Test and Training Range. The contract is valued at $68 million over a four-and-one-half-year period.

- Two contracts were signed with the General Petroleum and Mineral Organization (PETROMIN), Saudi Arabia, to provide software systems for various administrative functions and to train client personnel in management and operations of computer centers. Value of the contracts is $38 million over a three- to four-year period.

- A contract initially valued at $60 million over an eight-year period was signed with Sperry Corporation for work on the Air Force's computer modernization program, called Phase IV. CSC will provide software conversion and related services to upgrade existing Air Force computer programs (currently running on 287 older computers) to run on 150 new large-scale 1100/60 computer systems to be supplied by Sperry. The contract has options for two six-year renewal periods.

- A subcontract for NASA's new tracking and data relay satellite system (TDRSS) was signed with the Bendix Field Engineering Corporation. The initial three-year contract has a value of $36.6 million. The contract value could total $90 million over five years through exercise of renewal options and the inclusion of additional work that is anticipated.

- The Federal Emergency Management Agency signed a five-year contract valued at $120 million with CSC for its National Flood Insurance Program. CSC will act as the servicing agent for the program, providing policy and claims administration, supporting day-to-day operations, and operating education and information programs.

- CSC won the recompetition for the California Department of Health Services contract to process claims as fiscal intermediary for the state's $4 billion Medicaid program (MediCal). Value of the contract is $73 million over a four-year period.

- Three contracts were awarded from the Defense Communications Agency.

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- Two contracts are for systems support to the Pentagon's Command and Control Technical Center and for development of a turnkey system called TC ASSIC (transportation coordinator automated command and control system). The contracts are valued at $40 million over a five-year period.

- An additional contract includes provision of technical support to the Command and Control Engineering Center, specifically for the Worldwide Military Command and Control System and the National Military Command System. The contract is valued at $40 million over a five-year period if all options are exercised.

. CSC won the recompetition for a support contract with the Naval Weapons Center, China Lake (CA), valued at $67.5 million over a five-year period. The contract includes expanded responsibilities for direct support of the Naval Weapons Center's air-launched weapons and systems development programs, including processing of range data, software development, computer operations, and administrative processing services.

. The U.S. Naturalization and Immigration Service signed a contract with CSC for the design and development of software for a major modernization of the agency's information systems to increase productivity and efficiency at agency headquarters and local offices nationwide. Initial value of the contract is $24 million over a five-year period.

- Other major ongoing professional services contracts held by various divisions within CSC include:

. NASA support contracts at National Space Technology Laboratories, Johnson Space Center, Goddard Space Flight Center, Wallops Flight Center, and Langley Research Center.

. A large contract with the Saudi Arabian Ministry of the Interior to develop a nationwide computer information network. CSC is designing the system, providing computer software, supplying all of the computer and communications network switching equipment, constructing buildings and other structures, and training ministry personnel.

. Data processing, technical, and operational support services provided nationwide to the Environmental Protection Agency.

. A contract with the National Oceanic and Atmospheric Administration for facilities management of ground facilities operating the Landsat-4 spacecraft, including planning operations, processing image data, engineering, and software services.

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- System analysis and design, computer programming, user training, and system installation of equipment at Army bases worldwide for the Army Computer Systems Command, Fort Lee (VA).

- A turnkey contract to provide a standard automated financial system (STAFS) to 14 naval research laboratories for the Naval Supply Systems Command in San Diego.

- Several other support contracts with various agencies within the Department of Navy at Norfolk (VA), Newport (RI), Dahlgren (VA), Warminster (PA), Pt. Mugu (CA), and San Diego (CA).

- The Government Health Services Division is responsible for CSC's Medicaid claims-processing contracts and for a federal government contract to process claims for the National Flood Insurance Program.

  - CSC's Medicaid management information system provides information for administrative and fiscal management of state Medicaid programs, assists in the surveillance of services to prevent fraud and abuse, and processes claims for payment from providers of health services. The division has Medicaid contracts with California and Alaska.

  - The California operation, based in Sacramento, processes about three million claims a month, with a payment accuracy rate of 99.8%, according to state audits. Under the new contract award issued in August 1983, CSC will open regional offices in Fresno, Redding, San Diego, Los Angeles, and San Francisco next year. The regional staffs will assist health care providers in filing accurate claims so they can receive prompt payment.

  - A previous contract to process Medicaid claims for the state of Tennessee was terminated by the state in September 1982, after nine months of operation in a five-year agreement. Both parties filed suit against the other. The litigation ended in September 1983 under a settlement agreement in which the state acknowledged its reason for ending the contract was not default in CSC's performance, but termination solely for convenience of the state.

  - The contract award for the National Flood Insurance Program, issued by the Federal Emergency Management Agency, has an initial value of $23.5 million over an 18-month period. Total value of the contract will be $120 million if four annual renewal options are exercised.

    - CSC will provide policy and claims administration support; assist in actuarial planning and financial management; and operate education, marketing, and

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information programs for agents, brokers, adjusters, and lenders through a central office in Lanham (MD) and 11 U.S. regional offices.

- Processing related to the contract will be provided by INFONET, using an IBM 3083 at its Beltsville (MD) data center.

- The Medical Systems Division markets Infocare, a multi-million dollar investment by CSC to develop a hospital system that features a full range of patient care and financial systems integrated with a relational data base. In development since 1981, CSC signed contracts for its first installation in two New Jersey hospitals in August 1983.

  . Infocare is a modular, full-function hospital system that is readily modified to the requirements of individual hospital operations, policies, and procedures. It is designed for single hospitals of 250 beds and up, or groups of hospitals sharing data processing facilities. It operates on Tandem NonStop II computers to ensure 24-hour performance.

  . Applications available now on the system are:

    - Admissions/discharges/transfers.
    - Order communications.
    - Accounts payable.
    - General ledger.
    - Budgeting.
    - Payroll/personnel.
    - Patient billing/accounts receivable.

  . Applications scheduled for implementation in 1984 are:

    - Medical records.
    - Utilization review.
    - Quality assurance.
    - Pharmacy.
    - Radiology.
    - Patient appointment scheduling.
    - Inventory.
    - Fixed asset accounting.

- Data Services revenue is derived from the operating units of the INFONET Group and two subsidiary operations, Associated Credit Services and Paid Prescriptions. In fiscal 1983 Data Services revenue was $167.7 million, or 24% of total company revenue. Revenue by markets was:

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	Percent of Total	Revenue ($ millions)
Commercial	63%	$105.5
Federal government	19	30.9
International	18	30.7
State and local government	-	0.6
	100%	$167.7

- Revenue by operational units is estimated by INPUT as follows:

	Percent of Total	Revenue ($ millions)
INFONET Remote Computing	60%	$100.0
Business Services Division*	19	32.2
Associated Credit Services	17	28.0
Paid Prescriptions	4	7.5
	100%	$167.7

* Includes revenue from the general accounting, payroll, and on-line services operations subsequently sold to Automatic Data Processing.

- Revenue from INFONET includes general remote computing services and several long-term processing and support contracts held with AT&T and the federal government. INFONET revenue has declined in recent years due to the economic recession and increased competition in the federal sector. CSC believes this revenue base has stabilized.

  . INFONET remote computing services are provided via CSC's proprietary operating system, CSTS II, on Univac 1180s from data centers in El Segundo and Toronto, and on an IBM 4341 and 3083 located in Beltsville (MD). A Univac-based data center in Chicago was closed earlier this year.

    - Marketing emphasis for CSC's IBM-based service is overflow processing for government agencies and custom processing for commercial clients. About half of the clients are government and half are commercial users.

    - Applications offered on INFONET's Univac service are available for government and commercial clients for business planning and control, data base access, statistical analysis, and data management.

  . A profile of key products available on the Univac and IBM-based service is presented in Exhibit B.

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EXHIBIT B

INFONET NETWORK PROFILE
UNIVAC AND IBM SERVICES

UNIVAC SERVICE
APPLICATION AREA/PRODUCT NAME

- OPERATING ENVIRONMENT
  - 6 UNIVAC 1180/80s, CSTS II
- MICROCOMPUTER-BASED SUPPORT SERVICES (INFOSTATION)
  - IBM PERSONAL COMPUTER
  - TEXAS INSTRUMENTS PERSONAL COMPUTER
  - APPLE IIE
- PROGRAMMING LANGUAGES
  - APL
  - ASSEMBLY
  - BASIC
  - COBOL
  - FORTRAN
  - PL/1
  - PASCAL
- DATA BASE MANAGEMENT
  - MANAGE
- DATA BASES
  - SECURITIES LIBRARY (STOCKS, OPTIONS, BONDS)
  - SITE II (DEMOGRAPHIC DATA)
  - SEARCH (OFFSHORE OIL/GAS RETRIEVAL COSTS)
  - CONTICURRENCY (CURRENCY CONVERSION)
  - CITIBASE (ECONOMIC DATA)
- FINANCIAL APPLICATIONS/TOOLS
  - FLARES II (FINANCIAL LANGUAGE FOR ANALYSIS AND REPORTING)
  - FOREIGN CURRENCY MANAGEMENT (FCMS)
  - IFPS DECISION SUPPORT/FINANCIAL PLANNING
- PROJECT MANAGEMENT
  - MISTER
  - SPRED
- SIMULATION/ECONOMIC FORECASTING
  - GPSS-V
  - AUTOBJ
- MATHEMATICS AND STATISTICS
  - DISTAT
  - IMSL
  - MATHPACK
  - MPS-III
  - SAS
  - SPSS
  - STATPACK
  - SCICONIC
- GRAPHICS
  - DISSPLA
  - IGL
  - SKETCH
  - ENCORE
- OFFICE AUTOMATION
  - NOTICE (ELECTRONIC MAIL)
- OTHER
  - CORES (COAL RESERVE)
  - GAINS (INVENTORY PLANNING/CONTROL)
- UNIVAC/IBM INTERFACE
  - IBIS

IBM SERVICE
APPLICATION AREA/PRODUCT NAME

- OPERATING ENVIRONMENT
  - 1 IBM 4341, CMS
  - 1 IBM 3083, MVS/TSO
- PROGRAMMING LANGUAGES
  - ASSEMBLER (OS & VS)
  - BASIC (VS)
  - COBOL (ANS 74 & 68)
  - COBOL INTERACTIVE PROMPT/DEBUG
  - VS FORTRAN IV (G & H)
  - FORTRAN INTERACTIVE PROMPT/DEBUG
  - PASCAL
  - PL/1
- DATA/FILE MANAGEMENT SOFTWARE
  - EASYTRIEVE
  - IDMS-DB/DC
  - CREATABASE
  - LIBRARIAN
  - SYSTEM 2000
  - WYLBUR
- EDITORS
  - SCRIPT/VS
  - XEDIT
- PROJECT MANAGEMENT
  - PROJECT 2
- SIMULATION/STATISTICS
  - GPSS
  - SAS
- GRAPHICS
  - DISSPLA
  - TELL-A-GRAF
- PROGRAMMING AIDS
  - ABEND-AID
  - EASYREADER
  - CAPEX OPTIMIZER III
  - SYNCSORT
  - TSO SUPERSET
  - UCC ONE
  - VM/PASS THRU
- OTHER
  - ACF2
  - ASMS2
  - DIRMAINT
- UNIVAC/IBM INTERFACE
  - IBIS

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- New applications added to the network are:
  - NOTICE, an electronic mail service with microcomputer-access facilities.
  - Foreign Currency Management, a decision-support tool for managing foreign currency.
  - Creatabase, a data base analysis system for reference and research applications.
- Microcomputer-based support services offered by INFONET consist of microcomputer hardware, microcomputer software, maintenance support, and network capabilities. The service is currently offered with IBM and Texas Instruments personal computers and the Apple IIe. The offering consists of four equipment configurations designated as InfoStation.
  - Software available consists of InfoStation software, asynchronous communications software, and a bridging system to link the network with microcomputer software products from independent suppliers such as Ashton-Tate's dBASE II.
  - Targeted users are large corporations that require front-end processing for data collection and reporting.
  - Price of the systems start at $452 per month for an entry-level system and range up to $650 per month. The price includes hardware, software, maintenance, and support.
  - InfoStation products are only available to users of the Univac network service.
- In June 1983 INFONET received a contract valued at more than $8 million from AT&T Long Lines to install several hundred personal computers in branch sales offices. CSC will integrate the microcomputers with a variety of AT&T host computers and with the computers and data communications network of INFONET.
- Another contract, with a potential value of $30 million over a five-year period, was awarded in October 1983 from AT&T Communications. CSC will maintain and further enhance the Trunks Integrated Records Keeping System (TIRKS), an automated system that manages the provisioning and planning of telephone circuits, facilities, and equipment. Under a separate contract, CSC will continue to support a new Central Services Organization that will assume responsibility for TIRKS from Bell

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Labs on behalf of the divested operating companies, following the reorganization of AT&T and the divestiture of the operating companies in 1984. TIRKS is currently operational in 17 operating companies at 20 production data centers throughout the U.S.

- Other long-term processing contracts held by INFONET include:
  - A contract with the Naval Sea Systems Command for naval planning and repair activities (PERA).
  - Dedicated teleprocessing services for the Office of Finance, General Services Administration.
  - A contract with the Office of Child Support Enforcement, U.S. Department of Health and Human Services, to assist state governments to locate missing parents who owe their children child support.
  - Timesharing and related services for the U.S. Navy Automated Civilian Management Information System.

- In August 1983 CSC announced its entry into the value-added data communications services market. Network services are being marketed to commercial and government organizations that have a need for data communications among widespread facilities in the U.S. and abroad.
  - Offered is a high-performance packet network that links customers' terminals, personal computers, minicomputers, and mainframe computers.
  - It includes more than 150 microcomputer and minicomputer nodes interconnected by more than 130,000 miles of leased terrestrial circuits, as well as satellite links, and transmits data at speeds from 9,600 bps to 56,000 bps (bits per second).
  - The network directly serves 150 U.S. cities and 46 major foreign cities. Access to further foreign countries is available via international record carriers and telex.

- The Business Services Division of the INFONET Group currently markets to commercial clients the full range of CSC's processing and professional services. These services include remote computing, systems integration, application development, facilities management, data communications, and certain specialized services described below.
  - CSC's TACS (tax preparation service) is sold to professional tax preparers for processing state and federal individual, partnership, and corporation tax returns. Processing volume in 1983 was about 660,000 returns, averaging about $16 per return.

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  - Offered on a batch basis from data centers in Los Angeles and Chicago, TACS has been growing at 15-20% per year and is one of the most profitable operations within the INFONET Group.

  - TACS services are sold primarily in the Western States. In 1984 the service will be marketed in Illinois and Michigan. Expansion to New York, Connecticut, and New Jersey is planned for 1985.

  - TACS uses the latest technology of laser printers. CSC is experimenting with a new data entry device (called TACSNET) to transmit tax data.

- The DARTS System (formerly CMS Industries) offers complete data processing services for the distribution industry on an IBM 3031 from a separate data center in Los Angeles. Applications available include general ledger, accounts payable/receivable, billing, order entry, inventory control, management reporting/sales analysis, and purchase order processing.

- Processing services from the Pittsburgh data center consist of data services for several hospitals in the area, processing for custom on-line systems, and support to insurance firms.

- Paid Prescriptions, Inc., based in Paramus (NJ), processes pharmacies' claims for prescription drugs on behalf of medical plans and self-insured organizations offering pharmaceutical benefits. It also offers processing support for vision and hearing aid claims. Clients include major insurance carriers, health maintenance organizations, labor unions, and large self-insured companies.

- Associated Credit Services, Inc. (also known under a subsidiary name of Credit Bureau Data Centers, Inc.) is one of the five largest computerized credit reporting network services in the U.S.

  - The network includes more than 150 credit bureaus in 22 states. Membership includes both company-owned bureaus and "associates" that use the network under contract. Member bureaus' consumer credit information is stored and processed at a Houston data center.

  - On-line credit reports are ordered and bought by credit granters (retailers, financial institutions, hospitals and doctors, or anyone else who lends money or sells merchandise against later repayment) who contract with the member credit bureaus.

  - Credit bureaus pull the information from a central file via communications terminals. There are about 7,000 terminals connected to the network.

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INDUSTRY MARKETS

- In fiscal 1983 CSC's U.S. revenue came from:

	Percent of Total	Revenue ($ millions)
Federal government	69%	$392.9
Commercial	21	119.4
State and local government	10	57.4
	100%	$569.7

- Commercial revenue is derived from the utilities industry (telephone companies); from Fortune 500 companies in manufacturing, insurance, banking and finance; and from the retail, wholesale/distribution, and services (primarily accountants) sectors.

GEOGRAPHIC REVENUE

- CSC's revenue and operating income by geographic region over the last three years has been as follows:

	4/1/83		4/2/82		4/3/81	
	Percent of Total	Revenue ($ millions)	Percent of Total	Revenue ($ millions)	Percent of Total	Revenue ($ millions)
United States						
. Revenue	82%	$571.7	83%	$520.4	85%	$510.9
. Operating income	72	33.6	67	29.4	80	46.3
International						
. Revenue	18	123.2	17	109.8	15	89.7
. Operating income	28	13.3	33	14.3	20	11.5

- CSC maintains offices in principal cities throughout the U.S. Operations in Canada, the United Kingdom, Belgium, Germany, the Netherlands, and Switzerland are through subsidiary companies.

- CSC owns minority interests in affiliates in Venezuela, Australia, and South Africa.

- INFONET services are provided by franchised operations in Italy, Spain, and Mexico, and under sales representatives agreements in Japan, Hong Kong, Taiwan, Singapore, and France.

COMPUTER HARDWARE AND SOFTWARE

- INFONET provides remote computing services from data centers in El Segundo (CA), Beltsville (MD), and Toronto, Canada. A total of six Univac

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1180/80 systems are installed, operating under CSC's proprietary operating system CSTS II. The Beltsville center has an IBM 3083-E and an 4341-2 installed.

- CSC has developed its own communications network, using leased facilities, to provide remote computing services in North America and Europe. International record carriers are used in other locations.

- Local access to INFONET is provided in over 150 U.S. locations and in 46 foreign cities.

- Other data centers operated by CSC's INFONET Group include:

  - Tax processing: Magnuson M803Is are installed in Los Angeles and Chicago.

  - DARTS distribution services: offered on an IBM 3031 under OS/VSI from a data center in Los Angeles.

  - Pittsburgh data center general, hospital, and insurance processing: offered on an IBM 370/155.

- Paid Prescriptions operates an IBM 370/145 under OS/VSI from a data center in Paramus (NJ).

- Associated Credit Services' data center in Houston uses two Amdahl V/6 mainframes.

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COMPANY PROFILE

COMPUTER SCIENCES CORPORATION
650 North Sepulveda Blvd.
El Segundo, CA 90245
(213) 615-0311

William R. Hoover, President and Chairman
Public Corporation, NYSE
Total Employees: 14,700 Worldwide
Total Revenue, Fiscal Year End 4/3/81: $600,593,000

THE COMPANY

- Computer Sciences Corporation (CSC) was founded in 1959 to provide consulting services and to design and implement operating systems, compilers, and systems software.

  - Professional services have gradually expanded and now include systems engineering and development, communications engineering, facilities management, and turnkey computer-communications systems.

  - CSC entered the processing services market in 1970 with the introduction of INFONET, an international network service. INFONET now offers a variety of processing services including financial, scientific and engineering, personnel, simulation, and mathematical applications.

  - Batch accounting and tax services, claims processing, and distribution industry applications were added through acquisition in 1979.

- Total CSC FY 1981 revenue was $600.6 million, an increase of 33% over 1980. Pretax income was $47.1 million, a 9% increase over last year. Net income increased 9% to $24.7 million. Per share earnings increased 7% to $1.82. A five-year summary follows:

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CSC
FIVE-YEAR FINANCIAL SUMMARY
($ thousands, except earnings per share)

ITEM \ FISCAL YEAR	4/3/81	3/28/80	3/30/79	3/31/78 (a)	4/1/77
Total revenue	$600,593	$452,634	$342,013	$276,313	$234,607
. Percent increase from previous year	33%	32%	24%	18%	7%
Income before taxes and extraordinary credit	$ 47,096	$ 43,234	$28,360(b)	$ 26,343	$ 21,220
. Percent increase from previous year	9%	52%	8%	24%	47%
Net income	$ 24,725	$ 22,698	$ 14,198	$ 14,016	$11,635(c)
. Percent increase from previous year	9%	60%	1%	20%	61%
Primary earnings per share	$ 1.82	$ 1.70	$ 1.07	$ 1.00	$ 0.80(d)
. Percent increase from previous year	7%	59%	7%	25%	57%

(a) Restated to reflect a change in FY 1979 to the equity method of accounting for an Australian affiliate in which ownership was increased from 18% to 25%.

(b) After $1.9 million nonrecurring charge due to cessation of CSC's activities in Iran.

(c) Reflects net income prior to a $3 million tax credit. Net income with the tax credit was $14,635,000.

(d) Reflects earnings per share prior to tax credit. Earnings per share with the tax credit were $1.01.

- Income before taxes and net income were affected in FY 1981 by high costs of integrating the acquired Itel Corporation units into the Data Services operations, higher than expected costs associated with expanding European operations, and the development of energy control systems to be introduced in FY 1982.

- Revenue for the six months ended October 2, 1981, was $297.6 million, an increase of 7% over 1980. Income before taxes decreased 48% to $13.0 million, and net income declined 47% to $6.9 million. The declines were attributed to:

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- An unexpected $7.5 million cost overrun on certain fixed-price contracts to provide energy control systems to federal agencies. The loss was accounted for by a $7.5 million reduction in Contract Services revenue.

- Lower revenue from Infonet and the Business Services Division due to the weak economy, and an operating loss by Business Services.

- Higher research and development costs associated with the upgrade of Infonet hardware and software, the development of the Infocare hospital system, and the improvement of Business Services Division's accounting-related products.

- CSC is divided into three primary groups and sixteen secondary operating units, as seen in Exhibit A. For financial reporting purposes, these are grouped into two segments. A five-year summary of segment performance follows:

CSC SEGMENT REVENUES
($ millions)

FISCAL YEAR / ITEM	4/3/81	3/28/80	3/30/79	3/31/78	4/1/77
Contract Services					
. Revenue	$ 448.5	$ 329.6	$ 249.5	$ 198.2	$ 176.8
- Percent increase from previous year	36%	32%	26%	12%	3%
. Operating income*	$ 34.7	$ 24.7	$ 18.9	$ 18.9	$ 16.7
- Percent increase (decrease) from previous year	40%	31%	0	13%	34%
Data Services					
. Revenue	$ 152.1	$ 123.0	$ 92.5	$ 78.1	$ 57.8
- Percent increase from previous year	24%	33%	18%	35%	19%
. Operating income*	$ 23.1	$ 24.8	$ 18.1	$ 16.5	$ 13.7
- Percent increase from previous year	(7%)	37%	10%	20%	25%

* Before interest and other income, interest expense, and corporate general and administrative charges.

- The Data Services segment continued to provide a higher operating income per revenue dollar than the Contract Services segment in FY 1981. A summary showing segment contribution is given in Exhibit B.

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EXHIBIT A

CSC ORGANIZATION CHART

October 1981
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EXHIBIT B

COMPUTER SCIENCES CORPORATION

Revenue Sources
FYE 4/3/81

ITEM	CONTRACT SERVICES	DATA SERVICES	TOTAL CORPORATION
REVENUE BY MARKETS			
– INTERNATIONAL	13%	3%	16%
– COMMERCIAL	3%	15%	18%
– STATE AND LOCAL GOVERNMENT	8%	1%	9%
– FEDERAL GOVERNMENT	50%	7%	57%
REVENUE BY SERVICE FUNCTION			
– DATA SERVICES	–	100%	25%
– FACILITIES MANAGEMENT	36%	–	27%
– SYSTEMS DEVELOPMENT	64%	–	48%
REVENUE CONTRIBUTION			
– TOTAL REVENUE	$448.5	$152.1	$600.6
– OPERATING INCOME* ($ millions)	$ 34.7	$ 23.1	$ 57.8

*Operating income: Income before corporate overhead, interest, and taxes.

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- In September 1980, CSC sold its London-based subsidiary, Economic Models Ltd., to McGraw-Hill. CSC made no acquisitions in FY 1981.

- In October 1980, a federal grand jury indicted CSC, three employees, and three individuals alleging racketeering, mail fraud, wire fraud, false claims, and conspiracy involving a General Services Administration (GSA) contract held by CSC from March 1972 to September 1977.

  - As a result of the indictment, GSA, followed by the Departments of Defense and Energy, suspended the Information Network Group from bidding on or receiving new contracts.

  - Between January and February 1981, all indictments against CSC, its employees, and other individuals were dropped. Consequently all agencies dropped their suspension of the Information Network Group.

  - In July 1981, the Justice Department appealed the trial court's dismissal of all the original charges against CSC, its employees, and other individuals. This could result in the reinvestment of some or all of the charges.

- CSC intends to concentrate marketing and development efforts in six areas:

  - Continued development of the federal government market for Contract Services.

  - Further expansion of the worldwide services offered by INFONET.

  - Provision of services to the health care industry through claims processing and the marketing of a turnkey hospital information system.

  - Expansion of contract services in international markets, particularly the Middle East and Latin America.

  - Development of a larger client base for standard automated services such as payroll, accounts receivable, general ledger and income tax preparation for small- and medium-size businesses.

  - Continued diversification of commercial services provided by the Data Services Group through internal expansion and acquisition.

- CSC competes with different companies in its different business areas.

  - The Contract Services segment competes with TRW, Hughes, Raytheon, and IBM Federal for large turnkey development projects. Medicaid and government facilities management competes primarily with Electronic Data Systems.

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- The Data Services segment competes with other major computer services companies including Automatic Data Processing, Service Bureau, GEISCO, and Tymshare.

KEY PRODUCTS AND SERVICES

- Contract Services segment revenue is derived from U.S. federal government and international professional services contracts provided by the Systems Group, professional services contracts in Europe through the CSC Computer Sciences Europe unit, and state and local government facilities management contracts provided by the Commercial Division. Hospital turnkey systems and commercial professional services are also available from the Commercial Division.

  - Contract Services reported fiscal 1981 revenue of $448.5 million, a 36% increase over fiscal 1980. Operating income increased 40% to $34.7 million. A three-year distribution between consulting and facilities management as a percent of Contract Services revenue follows:

	4/3/81	3/28/80	3/30/79
System development and consulting operations	64%	66%	66%
Facilities management and support services	36	34	34
	100%	100%	100%

- The Systems Group is comprised of six divisions providing system development, communications engineering, consulting services, and turnkey systems primarily to U.S. government agencies. NASA and the Department of Defense are its largest clients.

  - The Applied Technology Division (ATD) provides operations and maintenance services for large and small systems, including the Cape Kennedy instrument and launch support center for NASA. In the last year, ATD won a two-year $22.2 million subcontract from Sperry Univac to upgrade Logistics Software for the Air Force.

  - The Defense Systems Division (DSD), the fastest growing division in FY 1981 serving the federal government, provides software development and support for the Navy's Trident submarine and Aegis air-defense systems. DSD received contracts in 1980 for antisubmarine system software for the P-3C aircraft and for data handling modernization of the Knox-class frigates. DSD also provides weapon simulation and testing, war game simulation, satellite and submarine communications, and data base systems.

  - The Systems International Division provides systems and services in the Middle East, Asia, and South America. A contract to provide a nationwide computer and communications system for the Saudi Arabian

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Ministry of the Interior is CSC's largest. The six-year contract, begun in 1979, is worth a total of $253.9 million.

- The Systems Sciences Division (SSD) has supported NASA projects since 1964. SSD provided communications and instrumentation services for the space shuttle and operated the Johnson Space Center Mission Control system. SSD supports operation of the Goddard Space Flight Center which provides worldwide NASA tracking and communication. Fiscal 1981 contracts included establishing a Space Telescope Science Institute at Johns Hopkins University, engineering a teleprocessing facility for Spacelab, and support of image processing for unmanned programs. SSD also has worked with the FAA on air traffic control simulations and systems.

- The Energy Research Division (ERD) provides services primarily to the Department of Energy. ERD currently provides facilities management at the Nevada nuclear test site.

- The Systems Division designs and builds large non-weapon systems for the military and other federal agencies. Information sciences, information systems, management sciences, and communications expertise are available.

  . In January 1980, CSC's Systems Division introduced the MS400 family of message switches for both message processing and transaction processing environments. Using CSC software and Tandem 16 minicomputers, the switch supports a variety of line protocols and terminals.

  . Prime marketing targets are banks' electronic funds transfer operations, police and fire departments, companies with extensive domestic and international telecommunications, and transaction processing operations with large clusters of terminals accessing different computers.

- CSC Computer Sciences Europe provides system design and consulting services in Europe through subsidiaries in the United Kingdom, Belgium, Germany, the Netherlands, and Switzerland. Recent contracts have included technical support for a digital communications network for the Swiss government, the British government's new Pay-As-You-Earn income tax system, and systems for the British Royal Air Force and the Dutch army. European INFONET operations are also handled by this division.

- In October 1981, CSC formed the Government Health Services Division to support Medicaid/Medicare facilities management contracts.

  - CSC's largest facilities management contract is as fiscal intermediary for the State of California's Medicaid program, called MediCal.

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  - CSC processes claims for payment from hospitals, physicians, pharmacies, nursing homes, and related health services providers.

  - CSC provides MediCal information for administrative and fiscal management as well as for surveillance of services to prevent fraud and abuse.

- In FY 1981, CSC added a Medicaid processing contract with the State of Alaska, and in FY 1982, CSC will process Medicaid claims for Tennessee under a five-year, $20 million contract.

- Data Services segment revenue is derived from INFONET and the Business Services Division which provide batch and interactive processing services in the government, health benefit, tax and accounting, distribution, and manufacturing areas.

  - Data Services reported fiscal 1981 revenue of $152.1 million, a 24% increase over fiscal 1980. Operating income decreased 7% to $23.1 million. The acquisition of various Itel units in December 1979 contributed $23.1 million (74%) of fiscal 1981 revenue growth. These units (Business Services Division) reported an operating loss. Fiscal 1981 revenue is estimated as follows ($ millions):

	4/3/81	3/28/80
INFONET	$107	$101
Business Services Division	38	15*
Paid Prescriptions	7	7
	$152	$123

*Three months' revenue only

- The INFONET Group includes all INFONET activities for marketing, development, and operations of its remote computing services worldwide.

  - INFONET provides a wide range of application services for commercial and government clients in business planning and control, engineering analysis, statistical analysis, and data management. A profile of key application products available on INFONET is presented in Exhibit C.

  - Fiscal 1981 INFONET revenue showed little growth because of expected decreases in federal government business. Due to increased competition and procurement regulations prohibiting the packaging of various services as one service, INFONET federal government FY 1981 revenue was approximately $40 million, down 9% from FY 1980.

    - In June 1980, CSC announced the addition of Distributed Network Services (DNS) to INFONET.

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EXHIBIT C

INFONET NETWORK PROFILE

APPLICATION AREA/PRODUCT NAME
• OPERATING ENVIRONMENT – UNIVAC 1108, CSTS (GPS, BASIC SUBSYSTEMS)
• DISTRIBUTED NETWORK SERVICES (DNS) (INFOSTATIONS 50, 200, 300, 400, 500, 600) – DATA ENTRY – DATA MANAGEMENT – SCREEN FORMATTER – INQUIRY AND REPORTING
• PROGRAMMING LANGUAGES – APL – ASSEMBLY – BASIC – COBOL – FORTRAN – PL/1
• DATA MANAGEMENT SOFTWARE – MANAGE – INQUIRY AND REPORT WRITING SYSTEM – SYSTEM 2000
• DATA BASES AVAILABLE – SECURITIES DATABASE (STOCKS, OPTIONS, BONDS) – SITE II (DEMOGRAPHIC DATA) – CITIBASE (CITIBANK ECONOMIC DATA BASE) – LSH (OFFSHORE OIL BID HISTORY) – SEARCH (OFFSHORE OIL/GAS RETRIEVAL COSTS) – CURRENCY CONVERSION
• FINANCIAL APPLICATIONS/TOOLS – FLARES II (FINANCIAL LANGUAGE FOR ANALYSIS AND REPORTING) – FIPABS (FINANCIAL CONSOLIDATIONS AND BUDGETING)
• SCIENTIFIC AND ENGINEERING – KSHEL (STRESS ANALYSIS) – TRIFLEX (PIPING ANALYSIS) – SUPERB (STRUCTURAL ENGINEERING) – GASP (STRUCTURAL ANALYSIS) – SDRC MECHANICAL DESIGN LIBRARY – DMJM (CIVIL ENGINEERING)

APPLICATION AREA/PRODUCT NAME
• PROJECT MANAGEMENT – MISTER – SPRED 2
• SIMULATION MODELING/ECONOMIC FORECASTING – DISTAT (LANGUAGE FOR STATISTICIANS AND ECONOMETRICIANS) – SCICONIC (LINEAR PROGRAMMING) – GPSS-V (SIMULATION TOOL) – AUTOBJ (BOX JENKINS)
• MATHEMATICS AND STATISTICS – SPSS (STATISTICAL PACKAGE FOR SOCIAL SCIENCES) – P-STAT & SCSS (CONVERSATIONAL STATISTICAL ANALYSIS) – SAS (STATISTICAL ANALYSIS SYSTEM) – BMDP (UCLA BIOMED SERIES) – MATHPACK (78 MATH SUBROUTINES) – MPS-III (SOLVES LINEAR INEQUALITIES)
• INDUSTRY SPECIFIC – GAINS (INVENTORY PLANNING AND CONTROL SYSTEM) – CORES (COAL RESERVE EVALUATION SYSTEM) – RISK (VOLUMETRIC RESERVE CALCULATIONS)
• GRAPHICS – ENCORE – DISSPLA – GRAPH PAC – SKETCH – IGL (INTERACTIVE GRAPHICS LANGUAGE)
• IBM VM/SP AND MVS/SP – ABEND-AID – ACF 2 – CAPEX OPTIMIZER – CMF – EASYTRIEVE – FAST DUMP RESTORE – FULL SCREEN EDIT – IBIS – PANVALET – SAS – SYNCSORT – TELL-A-GRAPH – TSO – WYLBUR

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- The initial offering consisted of six equipment configurations, based on DEC PDP-11/23 and PDP-11/44 processors, designated as Info Stations. An intelligent terminal has since been added.

- Info Station capabilities range from a microcomputer-based intelligent terminal for data entry and editing, to a large system for conversational editing, data storage, and background processing.

- Software provided on the systems include FORTRAN, BASIC, COBOL, a number of utility programs, and a subset of Manage, INFONET's proprietary data base management system.

- CSC anticipates that large industrial, commercial, and government clients with multiple offices, warehouses, or plants will be the primary users of the new service.

. INFONET services were expanded in 1980 through licenses with local companies in Japan, Singapore, and Taiwan.

- The Business Services Division, formed out of units acquired from Itel Corporation in 1979 and the merger of an earlier acquisition, CMS Industries, provides a combination of batch and on-line services. The Commercial Division and Paid Prescriptions also report to Business Services.

  - Processing services provided include:

    . Batch applications for general business applications including payroll, general ledger, accounts receivable, accounts payable, and time analysis.

    . On-line services for manufacturers and distributors consisting of order entry, invoicing, inventory control, sales history, sales analysis, accounts payable/receivable, general ledger, bill of materials and material requirements planning.

    . Tax processing services for state and federal returns. These services, available in twelve states, grew 35% in fiscal 1981.

  - In the spring of 1981, CMS Industries was merged into the Business Services Division. CMS Industries offers complete data processing services for the distribution industry. Applications available on its network include general ledger, accounts payable/receivable, bill of materials, order entry, inventory management, and sales analysis.

    . A distributed processing capability for order entry became available in April 1981 on IBM 8100 minicomputers.

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- CMS services are available nationwide and in Canada.

- The Commercial Division supports facilities management contracts, markets a hospital turnkey system, provides system development services, and processes pharmacies' claims for prescription drugs through a subsidiary, Paid Prescriptions. The division is what remains of CSC's original operating system and compiler development business.

  - Facilities management contracts include GF Business Equipment, Inc., Youngstown, OH; Pierce County, WA; and the city governments of Newark, NJ, and Torrance, CA.

  - The Commercial Division also markets Infocare, CSC's on-line minicomputer system for hospitals.

    - Infocare, including CSC proprietary software and multiple Tandem T16 processors, is marketed to hospitals of 150 beds and up.

    - Multiple minicomputers are centralized with terminals and distributed to various departments within the hospital. Terminals at nurse workstations and departments provide data entry and query. Modules available include: admission, discharge, and transfer; finance and administration; nursing and special services; pathology; pharmacy; radiology; and order communication and reporting.

    - Infocare is available as a turnkey system, on a shared basis with a local CSC data center, or on a facilities management contract basis.

    - CSC has three systems installed and a contract for a fourth system.

    - Infocare ranges in price from $6 to $7 per patient day, including all software modules and hardware.

  - The Commercial Division also writes operating system and compiler software for hardware companies and provides professional services and system development for nonfederal government clients.

  - Paid Prescriptions Inc. (PPI), based in Paramus (NJ), processes pharmacies' claims for prescription drugs on behalf of medical plans and self-insured organizations offering pharmaceutical benefits.

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- In May 1980, CSC purchased the vision and hearing-aid claims processing operations of Advanced Computer Techniques.

- PPI's client base includes major insurance carriers, health maintenance organizations, labor unions, and large self-insured companies.

INDUSTRY MARKETS

- CSC industry markets are estimated as follows:

- Federal government	57%
- Manufacturing	13
- Services	9
- State and local government	8
- Banking and finance	3
- Utilities	2
- Medical	2
- Retail	2
- Wholesale	2
- Transportation	1
- Insurance	1
	100%

GEOGRAPHIC MARKETS

- CSC's revenue and operating income by geographic region over the last three years has been as follows:

	4/3/81		3/28/80		3/30/79	
	$ Millions	Percent of total	$ Millions	Percent of total	$ Millions	Percent of total
United States						
. Revenue	$510.9	85%	$399.4	88%	$316.3	92%
. Operating income	46.3	80	43.8	88	37.6	100%
International						
. Revenue	89.7	15	53.3	12	25.7	8
. Operating income	11.5	20	5.8	12	(0.6)	0

COMPUTER HARDWARE

- INFONET provides remote computing services from data centers located in Chicago (IL), El Segundo (CA), Washington (DC), and Toronto, Canada. A total of 16 Univac 1108 computers are used in the support of network services. Several Univac 1110/82s will be installed by year end 1982.

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- CSC has developed its own communications network, using leased facilities, to provide remote computing services in North America and Europe. International record carriers are used in other locations.

  . INFONET currently serves users in 57 countries in North and South America, Europe, Africa, and Australia.

- INFONET is in the process of converting the Computer Sciences Teleprocessing System (CSTS) from Univac 1108 to Univac 1100/80 equipment. Implementation of CSTS on revenue generating machines began in 1981 and will continue through 1984.

- INFONET also offers an IBM service as a supplemental capability.

- Paid Prescriptions operates an IBM 370/145 under OS/VS1 in its data center in Paramus (NJ).

- CMS Industries' data center in Los Angeles operates an IBM 3031 under OS/VS1. Access to the network is through dedicated lines.

- Data centers maintained by the Business Services Division by type of processing include:

  - General accounting services.

    . Skokie (IL): IBM 360/50 and 360/40.
    . Cleveland (OH): IBM 360/50s.
    . Huntington Beach (CA): IBM 370/155 and Burroughs 6500s.
    . Lansing (MI): IBM 360/40.
    . Oakland (CA): IBM 360/40s and Data General CS/60.
    . Pittsburgh (PA): IBM 370/155.

  - Distribution and manufacturing.

    . White Plains (NY): IBM 370/155 and National Advanced Systems AS5. The White Plains facility also provides batch processing services for the accounting systems.

  - Tax services.

    . Los Angeles: IBM 360/50 and 360/30.

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Catalog No. MAD2

Mailed 5/5/82

INPUT DIRECTORY OF LEADING FIRMS
1982

Date: _____

Company Name: Computer Sciences Corporation

Street Address: _____

City, State, Zip: _____

Person Interviewed/Contacted: _____

Title: _____

Phone: _____

Comments: _____

Internal Use

Data Compiled From:

Annual reports, 10K's etc. Verified with Co.	☐ Yes	☐ No
Interview with Company Verified with Co.	☐ Yes	☐ No
Estimated by INPUT Verified with Co.	☐ Yes	☐ No

INPUT Analyst: _____

For your primary service, what percent comes from the following industries? (check primary service)

(97) ☐ Processing (1) ☐ Software (2) ☐ Professional Services (3) ☐ Integrated Systems (4)

TOTAL Co. U.S.

INDUSTRY	PERCENT 1981 REVENUE	1980/1981 GROWTH
Discrete Manufacturing	____ % (98)	____ % (113)
Process Manufacturing	____ % (99)	____ % (114)
Transportation	____ % (100)	____ % (115)
Utility	____ % (101)	____ % (116)
Banking and Finance	____ % (102)	____ % (117)
Insurance	____ % (103)	____ % (118)
Medical	____ % (104)	____ % (119)
Education	____ % (105)	____ % (120)
Retail Distribution	____ % (106)	____ % (121)
Wholesale Distribution	____ % (107)	____ % (122)
Federal Government	____ % (108)	____ % (123)
State and Local Government	____ % (109)	____ % (124)
Services	____ % (110)	____ % (125)
Other	____ % (111)	____ % (126)
Can't Classify (all International)	____ % (112)	____ % (127)
Total	100 %	

THANK YOU

☐ 1. H 2. M 3. L

Jim Furlong

COMPANY HIGHLIGHT

COMPUTER SCIENCES CORPORATION
650 North Sepulveda Blvd.
El Segundo, CA 90245
(213) 615-0311

William R. Hoover, President and Chairman
Public Corporation, NYSE
Total Employees: 14,800 Worldwide
Total Revenues, Fiscal Year End 3/~~23~~ 28/80: $452,634,000

THE COMPANY

- Computer Sciences Corporation (CSC) was founded in 1959 as a Nevada corporation to provide consulting services in the design and implementation of systems software, primarily operating systems and compilers. It has expanded its professional services to include systems engineering and development, communications engineering, operation of clients' data centers on a facilities management basis, and the provision of large computer-communications systems on a turnkey basis, including software, hardware, operational procedures and training. It also provides remote data processing services through its international INFONET network, and offers a variety of other processing services, including accounting and tax services, claims processing and applications for the distribution industry.

- Total corporate revenues increased to $452.6 million in 1980, a 32% gain over 1979 revenues of $342 million. Net income rose 60% to $22.7 million from the $14.2 million reported in the previous year. The improved results in net income were attributed to revenue growth, aided by a significant increase in interest income on short-term investments. Additionally, a non-recurring charge in 1979 of $1.9 million due to the cessation of CSC's activities in Iran further increased the difference between 1980 and 1979 earnings.

  - Revenues from CSC's contract services segment were $329.6 million, a gain of 32% over 1979 revenues of $249.5 million. Increases were attributed to continued strong growth in federal government markets, higher international revenue, particularly in Saudi Arabia, and increased revenue from a contract with the State of California for Medicaid claims processing.

  - Data Services revenues were approximately $123 million, a 33% increase from 1979. Acquisitions completed in FY 1980 contributed 51% of the revenue growth, with the remainder coming from continued growth in INFONET's commercial and international markets.

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CSC
FIVE-YEAR FINANCIAL SUMMARY
($ Thousands, Except Earnings Per Share)

ITEM \ FISCAL YEAR	3/28/80	3/30/79	3/31/78 (a)	4/1/77	4/2/76
Revenues					
. Contract services	$329,649	$249,524	$198,213	$176,838	$171,366
. Data services	122,985	92,489	78,100	57,769	48,493
Total revenues	$452,634	$342,013	$276,313	$234,607	$219,859
. Percent increase from previous year	32%	24%	18%	7%	24%
Income before taxes and extraordinary credit	$ 43,234	$ 28,360	$ 26,343	$ 21,220	$ 14,459
. Percent increase from previous year	52%	8%	24%	47%	100%
Net income	$ 22,698	$ 14,198	$ 14,016	$11,635(b)	$ 7,233
. Percent increase from previous year	60%	1%	20%	61%	98%
Primary earnings per share	$ 1.70	$ 1.07	$ 1.00	$ 0.80(c)	$ 0.51
. Percent increase from previous year	59%	7%	25%	57%	96%

(a) Restated to reflect a change in fiscal 1979 to the equity method of accounting for an Australian affiliate in which ownership was increased from 18% to 25%.

(b) Reflects net income prior to a $3 million tax credit. Net income with the tax credit was $14,635,000.

(c) Reflects earnings per share prior to tax credit. Earnings per share with the tax credit were $1.01.

- Revenues for the six months ended September 26, 1980, were $278.5 million, reflecting an increase of 36% over last year's $205 million. Net earnings were $13.1 million, up 25% from the $10.5 million reported a year ago.

- CSC is grouped in two major business segments, Contract Services and Data Services, for financial reporting purposes.

  - Contract Services are activities related to the development of a custom-designed communication or computer-based system, operational support of a client's technical activity, consulting and facilities man-

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agement services. These customized services are performed to a client's contractual specifications. The organizations involved in these activities employ about 12,000 people and consist of:

- Applied Technology Division.*
- Commercial Division.
- Defense Systems Division.*
- Energy Research Division.*
- System Sciences Division.*
- Systems Division.*
- Systems International Division.*

*Units of the Systems Group

- Data Services are proprietary services, with INFONET (CSC's remote computing network service) the most significant. The Data Services Group employs about 2,800 people and consists of:

  - Business Services Division.
  - Development and Operations Division.
  - INFONET Division.
  - International Division.
  - CMS Industries, Inc.
  - Computer Sciences Canada, Ltd.
  - Computer Science Europe, S.A.
  - PAID Prescriptions Inc.

- CSC also owns 25% of Computer Sciences of Australia Pty. Ltd. and 19.9% of Computer Sciences (Pty.) Ltd. of South Africa.

• CSC completed three acquisitions in FY 1980. The combined revenues of the acquisitions contributed $15,524,000 to total revenues and $1,375,000 to operating income for the year.

- CMS Industries was purchased in May 1979 for $2,605,000 cash. CMS provides specialized remote computing services for the distribution industry and had revenues of approximately $3 million at the time of acquisition.

- Three divisions of Itel Corporation were acquired in December 1979 for $12,099,000 in cash and a note for $3,750,000. The divisions provide a combination of batch and on-line processing services to the distribution industry, accounting firms and other organizations. The combined annual revenues of the divisions are approximately $36 million.

- Hospital Financial Services (HFS) of Newport Beach (CA) was acquired in December 1979 for $795,000 cash. HFS was acquired for its financial software for integration with CSC's Infocare hospital system.

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- Previously announced plans to acquire Los Angeles-based Pay-Fone Systems were cancelled.

- In September 1980, CSC sold its London-based subsidiary, Economic Models Ltd., to McGraw-Hill.

- CSC intends to concentrate marketing and development efforts in six areas:

  - Continued development of the federal government market for Contract Services.

  - Further expansion of the worldwide services offered by INFONET.

  - Providing services to the health care industry through claims processing and the marketing of a turnkey hospital information system.

  - Expanding its contract services in international markets, particularly the Middle East and Latin America.

  - Developing a larger client base for standard automated services such as payroll, accounts receivable, general ledger and income tax preparation for small- and medium-size businesses.

  - Continuing to diversify the commercial services provided by the Data Services Group through internal expansion and acquisition.

- CSC employs about 15,000 people at more than 150 locations throughout the world.

- CSC's primary strength continues to be its large staff of professionals who are experienced in all areas of the scientific and commercial application of computer science, communications, systems engineering and the space sciences. The diverse skills of the CSC professional staff enable the company to compete successfully in all EDP service and network application areas.

KEY PRODUCTS AND SERVICES

- Contract Services constitute the majority (73%) of CSC's total revenues. The remaining 27% stems from processing services provided by the Data Services Group. Exhibit A provides a breakdown of CSC's revenues by its service functions and industry markets.

- Contract Services revenues are primarily derived from federal government contracts held by the Systems Group and by facilities management contracts with state and local government agencies managed by the Commercial Division. Large development contracts within the international sector also contribute to CSC's Contract Services revenues.

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EXHIBIT A

COMPUTER SCIENCES CORPORATION

Revenue Sources
FYE 3/28/80

ITEM	Contract Services	Data Services	Total Corporation
Revenues by Markets			
- International	11%	13%	12%
- Commercial	4%	50%	17%
- State and Local Government	11%	1%	8%
- Federal Government	74%	36%	63%
Revenues by Service Function			
- Communications Engineering	4%	--	3%
- Data Services	--	100%	27%
- Facilities Management	34%	--	25%
- Systems Development	62%	--	45%
Revenue Contribution			
- Total Revenues	$239.6	$123.0	$452.6
- Operating income*	$ 24.7	$ 24.8	$ 49.6

* Operating income: Income before corporate overhead, interest and taxes.

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- Contract Services contributed $329.6 million in revenues and $24.7 million to CSC's operating income in FY 1980. Its compounded growth rate has averaged 18% for the past five years, while contribution to operating income averaged 19%.

- Approximately 46% ($210 million) of CSC's total revenue was generated from supplying contract services to two federal government agencies: NASA (26%) and the Department of Defense (20%). Defense contracts are expected to increase proportionally in the next several years.

- In January 1980, CSC's Systems Division introduced the MS400 family of message switches for both message processing and transaction processing environments.

  . Using CSC software and Tandem 16 minicomputers, the switch can support a variety of line protocols and terminals.

  . Prime marketing targets are banks' electronic funds transfer operations, police and fire departments, companies with extensive domestic and international telecommunications, and transaction processing operations where large clusters of terminals access different computers.

  . Several of the message-switching systems have been installed in government agencies, private industry and a securities trading system.

- The Commercial Division is responsible for supporting CSC's facilities management contracts with state and local governments, marketing a minicomputer-based hospital system and providing system development services.

  - CSC's largest state contract is with the State of California to serve as fiscal intermediary for the state's Medicaid program, called Medi-Cal. CSC's system performs the multiple functions of providing information for administrative and fiscal management of the Medi-Cal program and for surveillance of services to prevent fraud and abuse, as well as processing claims for payment from four categories of health services. The system is currently processing claims from pharmacies, nursing homes, hospitals, physicians and related providers of health services.

  - Other contracts held by the Commercial Division are with Pierce County (WA) and the city governments of Torrance, Newark and Cleveland. A previously held contract with Orange County (CA) was awarded to Electronic Data Systems in 1980.

  - The Commercial Division markets Infocare, an on-line minicomputer system for hospitals. Based on CSC-supplied software and multiple Tandem T16 processors, Infocare will be marketed to hospitals in the 150-200 bed range or more.

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  - Options available to hospitals include installing it on a turnkey basis, using it on a shared basis from a local data center established by CSC, or contracting for the use and operation of the system on a facilities management basis.

  - The hospital system is designed around seven application modules that support: admissions/discharges/transfers, pharmacy, pathology, finance and administration, nursing and special services, radiology, and order communication/results reporting.

  - CSC is installing two Infocare systems: one with the Memorial Hospital Medical Center of Long Beach, which participated in the joint development of Infocare, and one in Saddleback Hospital in Laguna Beach (CA).

  - Price of the system is in the range of $6 to $7 per patient day for all software modules and hardware.

- Contract services for the development of manufacturing applications are also performed by the Commercial Division, in addition to operating system and compiler development activities for major hardware firms.

• The Data Services Group provides worldwide remote computing services through INFONET, offers certain claims processing services for private health benefit plans, provides standardized accounting and tax-return services for small-and medium-size businesses, and on-line services for distributors and small manufacturers.

- Data Services contributed $123 million in revenues and $24.8 million to CSC's operating income in FY 1980. Its compounded growth rate has averaged 26% for the past five years, while contribution to operating income averaged 23%. Although Data Services is approximately one-third the size of Contract Services in terms of revenues, it provided 50% of the total operating income for the corporation in 1980.

- In 1980, CSC consolidated the operating units purchased from Itel into a new organization called the Business Services Division. INPUT estimates CSC's 1980 Data Services revenues were derived as follows:

INFONET	$100.5
Business Services Division (Three months)	12.5
Paid Prescriptions	7.0
CMS Industries	3.0
	$123.0 million

- INFONET provides a wide range of application services for commercial and government clients in business planning and control, engineering analysis, statistical analysis and data management. A profile of key application products available on INFONET is presented in Exhibit B.

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EXHIBIT B

CSC
KEY APPLICATIONS AVAILABLE ON INFONET

APPLICATION AREA/PRODUCT NAME	APPLICATION AREA/PRODUCT NAME
• OPERATING ENVIRONMENT – UNIVAC 1108, CSTS (GPS, BASIC SUBSYSTEMS) – IBM 370/168 & 3033, MVS (TSO, JES 2, WYLBUR) • DISTRIBUTED NETWORK SERVICES (DNS) – DATA ENTRY – DATA MANAGEMENT – SCREEN FORMATTER – INQUIRY AND REPORTING • PROGRAMMING LANGUAGES – APL – COBOL – ASSEMBLY – FORTRAN – BASIC – PL/1 • DATA MANAGEMENT SOFTWARE – MANAGE – INQUIRY AND REPORT WRITING SYSTEM – SYSTEM 2000 • DATA BASES AVAILABLE – SECURITIES DATABASE (STOCKS, OPTIONS, BONDS) – SITE II (DEMOGRAPHIC DATA) – CITIBASE (CITIBANK ECONOMIC DATA BASE) – NATIONAL COAL RESOURCES DATA BASE – LSH (OFFSHORE OIL BID HISTORY) – SEARCH (OFFSHORE OIL/GAS RETRIEVAL COSTS) • FINANCIAL APPLICATIONS/TOOLS – FLARES AND FLARES II (FINANCIAL LANGUAGE FOR ANALYSIS AND REPORTING – FIPABS (FINANCIAL CONSOLIDATIONS AND BUDGETING – CCAM (CORPORATE CREDIT ANALYSIS MODELING) • SCIENTIFIC AND ENGINEERING – KSHEL (STRESS ANALYSIS) – TRIFLEX (PIPING ANALYSIS) – SUPERB (STRUCTURAL ENGINEERING) – GASP (STRUCTURAL ANALYSIS) – SDRC MECHANICAL DESIGN LIBRARY – DMJM (CIVIL ENGINEERING) • PERSONNEL SYSTEMS – HUMAN RESOURCE SYSTEM (OSHA, EMPLOYMENT HISTORY, ERISA, AAP, EEO COMPLIANCE)	• PROJECT MANAGEMENT – MISTER – SPRED 2 • SIMULATION MODELING/ECONOMIC FORECASTING – DISTAT (LANGUAGE FOR STATISTICIANS AND ECONOMETRICIANS) – SCICONIC (LINEAR PROGRAMMING) – GPSS-V (SIMULATION TOOL) – AUTOBJ (BOX JENKINS) – SIMCOST II (EVALUATES AND FORECASTS MANUFACTURING COSTS) • MATHEMATICS AND STATISTICS – SPSS (STATISTICAL PACKAGE FOR SOCIAL SCIENCES) – P-STAT & SCSS (CONVERSATIONAL STATISTICAL ANALYSIS – SAS (STATISTICAL ANALYSIS SYSTEM) – BMDP (UCLA BIOMED SERIES) – IMSL (406 MATH/STAT SUBROUTINES) – MATHPACK (78 MATH SUBROUTINES) – MPS-III (SOLVES LINEAR INEQUALITIES) • INDUSTRY SPECIFIC – GAINS (INVENTORY PLANNING AND CONTROL SYSTEM) – ECON (FINANCIAL ANALYSIS OF OIL AND GAS VENTURES) – MECON (FINANCIAL ANALYSIS OF MINING PROSPECTS) – CORES (COAL RESERVE EVALUATION SYSTEM) – RISK (VOLUMETRIC RESERVE CALCULATIONS) • GRAPHICS – EZPERT – ENCORE – DISSPLA – GRAPH PAC – SKETCH – IGL (INTERACTIVE GRAPHICS LANGUAGE) • IBM 370 UTILITIES – FAST DUMP RESTORE – IBIS – LIBRARIAN – OS WORKSTATION – PANVALET – SORT/MERGE – CONVERSE ROUTINES

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. New application products added to INFONET include:

  - FLARES II, an advanced version of the Financial Analysis and Reporting System.

  - An Inquiry & Report Writing System that operates independently of CSC's proprietary DBMS, Manage.

  - CCAM, a Corporate Credit Analysis Modeling tool.

  - CORES and RISK for evaluation and calculation of energy reserves.

  - IGL, an Interactive Graphics Language.

. In June 1980, CSC announced the addition of Distributed Network Services (DNS) to INFONET.

  - Based on DEC PDP-11/23 and PDP-11/44 processors, the initial offering consists of six equipment configurations designated as Info Stations.

  - Capabilities of an Info Station range upward from a small computer for data entry, editing and some local data management, to a large system that can perform conversational editing, data storage and background processing.

  - Software provided on the systems include FORTRAN, BASIC, COBOL, a number of utility programs and a subset of Manage, INFONET's proprietary DBMS.

  - DNS operates in conjunction with the network and costs a minimum of $4,000 per month on a two-year commitment.

  - CSC anticipates that large industrial, commercial and government clients with multiple offices, warehouses or plants will be the primary users of the new service.

. INFONET's revenues from the federal government remained stable in 1980 (approximately $44 million). Due to increased competition and procurement regulations that prohibit packaging various services in one service, CSC anticipates a 15-20% reduction in revenue from federal clients in FY 1981.

- The Business Services Division provides a combination of batch and on-line services from eight data centers.

  . Batch applications available for general business applications are payroll, general ledger, accounts receivable, accounts payable and time analysis.

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  - On-line services for manufacturers and distributors consist of order entry, invoicing, inventory control with on-line inquiry to inventory and customer credit, sales history, sales analysis, accounts payable/receivable, general ledger, bill of materials and material requirements planning.

  - Tax processing services (TACS) are provided for state and federal returns from a data center in Los Angeles.

- Paid Prescriptions Inc., based in Paramus (NJ), processes pharmacies' claims for prescription drugs on behalf of medical plans and self-insured organizations that offer pharmaceutical benefits to members or employees.

  - In May 1980, CSC purchased the vision and hearing-aid claims processing operations from Advanced Computer Techniques.

  - The client base for Paid's expanded operation includes major insurance carriers, health maintenance organizations (HMOs), labor unions and large self-insured companies.

  - Approximately 14 million drug claims are processed on an annual basis.

- CMS Industries offers a complete data processing service for the distribution industry. Applications available on its network include accounting (general ledger, accounts payable/receivable, etc.), order entry, inventory management and sales analysis.

  - Bill of materials will be added in January 1981.

  - A distributed processing capability for order entry will be available in April 1981. The new service will be offered on IBM 8100s.

  - CMS services are available nationwide and in Canada.

INDUSTRY MARKETS

- CSC's industry markets are estimated as follows:

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- Manufacturing	6%
- Utilities	1
- Banking and finance	1
- Medical	2
- Distribution	1
- Federal government	63
- State and local government	8
- Services	6
- International	12
	100%

GEOGRAPHIC MARKETS Approximately 88% of CSC's revenues are derived from domestic sales and 12% from international operations. CSC maintains offices in all major U.S. and Canadian cities and in major industrial areas in Europe, Australia, South Africa and the Mid-East.

COMPUTER HARDWARE

- INFONET provides remote computing services from five data centers located in El Segundo, Chicago, Washington (DC), Toronto and Calgary. A total of 16 Univac 1108 computers are used in the support of network services.

  - INFONET has been involved in a major R&D effort to convert the Computer Sciences Teleprocessing System (CSTS) from Univac 1108 hardware to Univac 1100/80 equipment. Implementation of CSTS on revenue machines is scheduled to begin in 1981 and continue through 1984.

  - CSC has developed its own communications network, using leased facilities, to provide remote computing services to North America and Europe. International record carriers are used for other locations.

    . During the past year, INFONET initiated service to Mexico under a joint agreement with the Mexican government and extended services to Hong Kong and Macao through a joint agreement with Chartered On-Line Ltd. of Hong Kong.

    . INFONET currently serves users in 57 countries in North and South America, Europe, Africa, and Australasia.

  - INFONET also offers an IBM System/370 service as a supplemental capability.

- Paid Prescriptions uses an IBM 370/145 operating under OS VS1 in its data center in Paramus (NJ).

- CMS Industries' data center in Los Angeles uses an IBM 3031 operating under OS VS1. Access to the network is through dedicated lines.

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- Data Centers maintained by the Business Services Division are segmented by type of processing as follows:
  - General Accounting Services.
    - Skokie (IL): IBM 360/50 and a 360/40.
    - Cleveland: two IBM 360/50s.
    - Huntington Beach (CA): IBM 370/155 and two Burroughs 6500s.
    - Lansing (MI): IBM 360/40.
    - Oakland (CA): Two IBM 360/40s and a Data General CS/60.
    - Pittsburgh: IBM 370/155.
  - Distribution and Manufacturing.
    - White Plains (NY): IBM 370/155 and a National Advanced Systems AS5. The White Plains facility also provides batch processing services for the accounting systems.
  - Tax Services.
    - Los Angeles: IBM 360/50 and a 360/30.

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Conf. Info — only give out approximates

CSC — Data Services

Calendar '80		Fiscal (3/81)
85	Infonet	85
6	Intn'l	6
9	Canada	9.2
.6	EML	.5

Data Services Group

Calendar '80		Fiscal (3/81)
3.5	CMS online	4.0
7.0	Paid (batch)	7.4
5.0	Tax (batch)	7.0
6.5	Online → White Plains	7.0
21.0	Batch (Gen'l Acct'g some batch & custom prog.)	21.0
4.7	Curage	4.8
14.7	Contract (Prof Serv.)	15.0
	↑ Curage	166.6 152.1

Divisions

① Information Services
- INFONET
- Intn'l
- EML

TOTAL CALENDAR '80: 163

② Data Services
- CMS
- Paid
- Tax
- On-line
- Batch (batch & cust.)
- Curage

Contract Services (Curage)

COMPUTER SCIENCES CORPORATION
650 North Sepulveda Blvd.
El Segundo, CA 90245
(213) 678-0311

William R. Hoover, President and Chairman
Public Corporation, NYSE
Total Employees: 11,400 Worldwide
Total Revenues, Fiscal Year End 3/30/79: $343,202,000

THE COMPANY

- Computer Sciences Corporation (CSC) was founded in 1959 as a Nevada corporation to provide consulting services in the design and implementation of system software, primarily operating systems and compilers. It has since expanded its professional services to include systems engineering and development, communications engineering, operation of clients' data centers on a facilities management basis, and the provision of large computer-communications systems on a turnkey basis, including software, hardware, operational procedures and training. It also provides remote data processing services through its international INFONET network, and a variety of other proprietary data services, including transaction processing, and data base-oriented and applications-oriented computer services.

- Total corporate revenues increased to $343.2 million in 1979, a 24% gain over 1978 revenues of $277.4 million. Earnings were adversely affected by a charge of $1.9 million in the fourth quarter of 1979 due to the overthrow of the government of Iran and the resulting discontinuance of CSC's activities in that country. Had that political action not occurred, the 1979 growth over 1978, as shown in the five-year financial summary that follows, would have been: 1979 income before taxes, up 15%; net earnings, up 15%; and earning per share, up 21%.

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COMPUTER SCIENCES CORPORATION
FIVE YEAR FINANCIAL SUMMARY
($ Thousands, Except Earnings Per Share)

ITEM \ FISCAL YEAR	3/30/79	3/31/78	4/1/77	4/2/76	3/28/75
Revenues					
. Contract services	$250,713	$199,068	$176,976	$171,417	$139,446
. Data services	92,489	78,100	57,769	48,493	37,905
Total revenues	$343,202	$277,168	$234,745	$219,910	$177,351
. Percent increase from previous year	24%	18%	8%	24%	21%
Income before taxes and extraordinary credit	$ 28,360	$ 26,343	$ 21,220	$ 14,459	$ 7,227
. Percent increase from previous year	8%	24%	47%	100%	228%
Net income	$ 14,198	$ 14,016	$ 11,635(A)	$ 7,233	$ 3,645
. Percent increase from previous year	1%	20%	61%	98%	133%
Primary earnings per share	$ 1.07	$ 1.00	$ .80 (B)	$ .51	$ .26
. Percent increase from previous year	7%	25%	57%	96%	117%

(A) Reflects net income prior to a $3 million tax credit. Net income with the tax credit was $14,635,000.

(B) Reflects earnings per share prior to tax credit. Earnings per share with the tax credit were $1.01.

- CSC is grouped in two major business segments, Contract Services and Data Services, for financial reporting purposes.

  - Contract Services are activities related to the development of a custom-designed communication or computer-based system, operational support of a client's technical activity, consulting, and facilities management services. These customized services are performed to a client's contractual specifications. The organizations involved in these activities employ about 9,700 people and consist of:
    . Applied Technology Division.*
    . Commercial Division.
    . Defense Systems Division.*
    . Energy Research Division.*
    . System Sciences Division.*
    . Systems Division.*
    . Systems International Division.*
  - Data Services are proprietary services, of which the most significant is INFONET, CSC's remote computing network service. The Data Services Group employs about 1,700 people, and consists of:

* Units of the System Group.

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- INFONET Division.
- Computer Sciences Canada.
- Computer Sciences Europe.
- CMS Industries.
- Economic Models Ltd.
- PAID Prescriptions.

- The Data Services Group has been actively seeking acquisitions to expand its service offerings to the commercial sector. Three companies have been acquired since 1978 and a major purchase of a portion of Itel's Data Services Group is currently pending.

  - PAID Prescriptions, Inc., based in Paramus, New Jersey, was acquired in January 1978. PAID processes pharmacies' claims for prescription drugs on behalf of medical plans and self-insured organizations that offer pharmaceutical benefits to members or employees.
  - Economic Models Ltd (EML), based in London, England, was acquired in February 1978. EML provides economic consulting services, forecasts of national economies, and econometric models and data base services.
    - The acquisition of the claim-processing assets of PAID and all of the capital stock of EML was reported as a cash transaction in the amount of $2,675,000.
  - CMS Industries, acquired in May 1979, provides specialized remote computing services (order entry, inventory management, accounting, and sales analysis) for the distribution industry. CMS' revenues were approximately $3 million at the time of acquisition.
  - The pending acquisition of three units from Itel, the Data Processing Division/Batch, Data Processing Division/On-line and the Professional Services Division, will add approximately 800 employees and about ten data centers to CSC's Data Services Group. Activities of the Itel units include batch services to accounting firms and other organizations for income tax preparation, payroll, general ledger, and accounts receivable. On-line services are centered around applications for the distribution industry. The combined annual revenues of the Itel units are approximately $36 million. CSC's preliminary purchase offer for these units is $19 million in cash.

- CSC's primary strength continues to be its large staff of professionals who are experienced in all areas of the scientific and commerical application of computer science, communications, systems engineering, and the space sciences. The diverse skills of the CSC professional staff enable the company to compete successfully in all EDP service and network application areas.

- CSC intends to concentrate marketing and development efforts in five areas:

  - Continue to compete for contract services within the Federal Government.
  - Market large system development projects in the international sector.
  - Develop a services market to the hospital industry.

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- Expand commercial service applications within INFONET to capture more business from domestic and international clients, especially multi-national corporations.
- Develop and expand the services offered by the Itel units, provided the acquisition is completed.

KEY PRODUCTS AND SERVICES

- Contract Services contitutes the majority of CSC's total revenues (73%). The remaining 27% stems from processing services provided by the Data Services Group. Exhibit A provides a breakdown of CSC's revenues from its service functions and industry groups.

- Contract Service revenues are primarily derived from Federal Government contracts held by the Systems Group and by facilities management contracts with state and local government agencies managed by the Commerical Division. Large development contracts within the international sector also contribute to CSC's Contract Service revenues.

  - CSC's 1979 contract revenues were $250.7 million, a 26% increase over 1978 revenues of $199.1 million. Contribution to operating income was $20.1 million in 1979 versus $19.7 million in 1978. The almost static growth in profit was attributed to the cessation of the Iranian operation and to the low profit margin associated with Federal Government contracts.
  - Approximately 41% ($140.7 million) of CSC's total revenues was generated from supplying contract services to two Federal Government agencies: the National Aeronautics and Space Administration (26%) and the U.S. Navy (15%).
    - CSC's Applied Technology Division has several multi-million dollar contracts to provide facilities management and data processing support activities in NASA facilities at Goddard Space Flight Center, Johnson Space Flight Center, Marshall Space Flight Center, Kennedy Space Center, and the Ames Research Center. CSC's position as the primary computer services vendor for NASA places the corporation in an advantageous position for obtaining additional contracts in support of NASA's Space Shuttle Program.
    - Representative contracts held with the U.S. Navy are for the development of the Aegis weapons system and TRIDENT submarine system. Several service contracts are also held by CSC at Naval centers in San Diego, Pt. Mugu, China Lake (CA), and Warminister, PA.
    - Work performed for the Defense Communications Agency, the U.S. Army, and the Department of Energy also contributes significantly to Contract Services revenues.
  - In January 1979, CSC signed a five year contract with the Saudi Arabia Ministry of the Interior to provide a complete teleprocessing network for the Saudi government. The value of this contract is expected to

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16
12
28

Cybernet — IDC # 1980

Reynolds — $75 — RCS

Infonet ① Infonet + Int'l (Canada)
② Data Serv. CMS
PAID
DSO —
Tax
On-line
Batch
European
European
Contract

Calendar

'79

'80

85 Info.
6 Int'l
9 Canad
.6 EML

3/81

Fiscal

85 Infont
6 Int'l
9.2 Can
.5 EML

80

3/81

3/31

Data Serv.

3.5	CMS →	4.0
7.0	Paid	7.4
5.0	Tax	7.0
6.5	On-line	7.0
21.	Batch	21.
4.7	Europe	4.8
14.7	[illegible]	15.—

Same: batch & custom prog.

CSC

Calendar '79

Calendar

Internet	83
Int'l	3.6
Canada	8
EML	.6

Data

CMS	1.9
Paid (watch)	6.7
Tour (Dec.	.(23,000 K)
Online	.5
Batch	2.0
Europe	3.0
Europe Contract	9

CSC

All DSC — 166
(International: 35
prof. services)

131

RCS related 102
Dated 29

131

EXHIBIT A

COMPUTER SCIENCES CORPORATION

Revenue Sources
FYE 3/30/79

ITEM	Contract Services	Data Services	Total Corporation
Revenues by Markets			
- International	5%	13%	7%
- Commercial	6%	39%	15%
- State and Local Government	9%	1%	7%
- Federal Government	80%	47%	71%
Revenues by Service Function			
- Communications Engineering	8%		5%
- Data Services		100%	27%
- Facilities Management	34%		25%
- Systems Development	58%		43%
Revenue Contribution			
- Total Revenues	$250.7	$ 92.5	$343.2
- Operating income*	$ 20.1	$ 18.1	$ 38.2

* Operating income: Income before corporate overhead, interest, and taxes.

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contribute $221.5 million in revenues over the next five years. Work on this project will be headed by the Systems International Division.

- The Commercial Division has been successful in competing for a number of state and local government facilities management contracts. The largest of these is a contract to handle the claims processing functions for the State of California's Medi-Cal program. Other contracts currently held by the Commercial Division are with Orange County (CA), Pierce County (WA), and with the city governments of Torrance, Newark, and Cleveland.
  - In August 1979, CSC announced its entry into the hospital services market with a minicomputer system. Based on software developed by CSC and multiple Tandem T16 processors, the system will be marketed to hospitals with 300 beds or more.
    - Options available to hospitals include installing it on a turnkey basis, using it on a shared basis from a local data center established by CSC, or contracting for the use and operation of the system on a facilities management basis. CSC has no present plans to connect the hospital system with INFONET services.
    - The hospital system is designed around seven application modules which support: admissions/discharges/transfers; pharmacy; pathology; finance and administration; nursing and special services; radiology; and order communication.
    - Delivery of the system is expected in mid-1980.
  - In 1979 the Commercial Division also announced an award with G.F. Business Equipment for a facilities management contract. This award is one of the few FM contracts from a manufacturing firm to an outside services vendor.
  - Contract services for the development of manufacturing applications are also performed by the Commercial Division, in addition to operating system and compiler development activities for major hardware firms.

- The Data Services Group, contributing $92.5 million to 1979 revenues, is the most profitable group within CSC. Although Data Services is about one-third the size of Contract Services in terms of revenues, it contributed 47% of the total operating income for the corporation in 1979.

  - The principal activity of Data Services is INFONET, CSC's worldwide remote computing network service. INFONET provides a wide range of application services for commerical and government clients in business planning and control, engineering analysis, statistical analysis, and data management. A profile of the INFONET network and key application products is presented in Exhibit B.
  - Approximately 93% of INFONET's revenues are derived from interactive and remote batch processing with the remaining 7% coming from batch services. The largest revenue producing applications used on INFONET are financial reporting, data management, and business analysis.
  - New application products announced on INFONET include:

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  - CSC Securities Library, a data base of more than 20,000 stocks, bonds, and money market instruments.
  - InSci Human Resource System, an all-purpose personnel system incorporating requirements of EEO, OSHA, and ERISA.
  - Petroleum and mining applications which provide investment analysis, risk analysis of oil and gas reserves, a history of federal offshore lease sales, and a data base of costs for offshore exploration and development activities worldwide.
  - DIADEM, EML's international forecasting system linking macro models for nine countries.
  - EML macroeconomic forecasts and forecasting models for the automotive, chemical, paper and energy services industries.
- INFONET's revenues from the Federal Government have been declining as a proportion of total processing revenues for the last several years. Processing revenues from the Federal sector contributed 47% of Data Services revenues in 1979, versus 54% in 1978 and 61% in 1977. Although a portion of this decline can be attributed to the change in status of CSC as the mandatory source for certain types of remote computing services within the Federal Government, INFONET has also achieved a significant increase in revenues from the commercial and international sectors.
- INFONET has also been involved in a major R&D effort to convert the Computer Sciences Teleprocessing System (CSTS) from Univac 1108 hardware to Univac 1100/80 equipment. Implementation of CSTS on the new hardware is scheduled to begin in mid-1980 and continue through 1983.
- INFONET services are offered through wholly owned operations in the U.S. and Europe, a 92% owned subsidiary in Canada, minority-owned affiliates in Australia and South Africa, and franchise operations in Spain, Italy, and Mexico.

INDUSTRY MARKETS

- CSC's industry markets are estimated as follows:

Manufacturing	4.0%
Transportation	.5
Utilities	1.0
Banking and Finance	3.0
Insurance	1.0
Medical	2.0
Distribution	.5
Federal Government	71.0
State and Local Government	7.0
Services	3.0
International	7.0
	100.0%

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GEOGRAPHIC MARKETS Approximately 93% of CSC's revenues are derived from domestic sales and 7% from international operations. CSC maintains offices in all major U.S. and Canadian cities and in major industrial areas in Europe, Australia, South Africa, and the Mid-East.

COMPUTER HARDWARE

- INFONET maintains five data centers located in El Segundo, Chicago, Washington, DC, Toronto, and Calgary. A total of 16 Univac 1108 computers are used in the support of network services. These will be replaced by a number of Univac 1100/80 systems.
- CSC has developed its own satellite communications network to provide remote computing services to North America and Europe. International record carriers are used for other locations.
- INFONET also offers an IBM System/370 service as a supplemental capability.

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EXHIBIT B

CSC

KEY APPLICATIONS AVAILABLE ON INFONET

APPLICATION AREA/PRODUCT NAME
• OPERATING ENVIRONMENT – UNIVAC 1108, CSTS (GPS, BASIC SUBSYSTEMS) – IBM 370/168 & 3033, MVS (TSO, JES 2, WYLBUR)
• PROGRAMMING LANGUAGES – ASSEMBLY – BASIC – COBOL – FORTRAN – PL/1
• DATA MANAGEMENT SOFTWARE – MANAGE – SYSTEM 2000
• DATA BASES AVAILABLE – SECURITIES DATABASE (STOCKS, OPTIONS, BONDS) – SITE II (DEMOGRAPHIC DATA) – CITIBASE (CITIBANK ECONOMIC DATA BASE) – NATIONAL RESERVES COAL DATA BASE – LSH (OFFSHORE OIL BID HISTORY) – SEARCH (OFFSHORE OIL/GAS RETRIEVAL COSTS)
• FINANCIAL APPLICATIONS/TOOLS – FLARES (FINANCIAL LANGUAGE FOR ANALYSIS AND REPORTING) – FIPABS (FINANCIAL CONSOLIDATIONS AND BUDGETING)
• SCIENTIFIC AND ENGINEERING – ANSYS (ENGINEERING ANALYSIS) – COSMIC NASTRAN (STRUCTURAL ANALYSIS) – KSHEL (STRESS ANALYSIS) – TRIFLEX (PIPING ANALYSIS) – SUPERB (STRUCTURAL ENGINEERING) – GASP (STRUCTURAL ANALYSIS) – SDRC MECHANICAL DESIGN LIBRARY
• INDUSTRY SPECIFIC – GAINS (INVENTORY PLANNING AND CONTROL SYSTEM) – ECON (FINANCIAL ANALYSIS OF OIL AND GAS VENTURES) – MECON (FINANCIAL ANALYSIS OF MINING PROSPECTS)

APPLICATION AREA/PRODUCT NAME
• PROJECT MANAGEMENT – MISTER – SPRED
• PERSONNEL SYSTEMS – HUMAN RESOURCE SYSTEM • OSHA • EMPLOYMENT HISTORY • ERISA • AAP • EEO COMPLIANCE
• GRAPHICS – EZPERT – ENCORE – DISSPLA – GRAPH PAC – SKETCH
• SIMULATION MODELING/ECONOMIC FORECASTING – DIADEM (FORECASTING/MACRO MODELS) – DISTAT (LANGUAGE FOR STATISTICIANS AND ECONOMETRICIANS) – SCICONIC (LINEAR PROGRAMMING) – GPSS-V (SIMULATION TOOL) – AUTOBJ (BOX JENKINS) – SIMCOST II (EVALUATES AND FORECASTS MANUFACTURING COSTS)
• MATHEMATICS AND STATISTICS – SPSS (STATISTICAL PACKAGE FOR SOCIAL SCIENCES) – P-STAT & SCSS (CONVERSATIONAL STATISTICAL ANALYSIS) – SAS (STATISTICAL ANALYSIS SYSTEM) – BMDP (UCLA BIOMED SERIES) – IMSL (406 MATH/STAT SUBROUTINES) – MATHPACK (78 MATH SUBROUTINES) – MPS-III (SOLVES LINEAR INEQUALITIES)
• IBM 370 UTILITIES – FAST DUMP RESTORE – IBIS – LIBRARIAN – OS WORKSTATION – PANVALET – SORT/MERGE – CONVERSE ROUTINES

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Ms Gail Lepard
Manager, Market Information
"Gail"

COMPANY HIGHLIGHT

COMPUTER SCIENCES CORPORATION
650 North Sepulveda Blvd.
El Segundo, CA 90245
(213) 678-0311

William R. Hoover, President
Public corporation, NYSE
Total employees: 10,000 worldwide
Total revenues fiscal year end
3/31/78: $276,912,000

THE COMPANY

- Computer Sciences Corporation (CSC), founded in 1959 in Nevada, was one of the first companies to provide systems software and consulting. It has since expanded its professional (contract) services to include systems engineering and development, communications engineering, and facilities management, and offers remote data processing services through its INFONET network.

- Fiscal 1977 revenues increased 7% to $234.7 million from $219.9 million in fiscal 1976. Income before taxes grew 47% to $21.2 million from $14.5 million, while net earnings gained 61% to $11.6 million (before a $3 million extraordinary tax credit) from $7.2 million in fiscal 1976.

- Revenues resumed their traditional strong growth pattern in fiscal 1978, with an 18% gain to $276.9 million. Pre-tax income rose 23% to $26.1 million in 1978, and net earnings of $13.9 million increased 19% (before the 1977 extraordinary tax credit). All major sectors of CSC's activities and markets contributed to the 1978 growth except the international market, where revenue declined due to the completion of major portions of contracts in the Mideast.

- During fiscal 1978, CSC began an acquisition program for its new data services group. The acquisitions in 1978 were:

  - Economic Models Limited (London, England), an economic consulting firm acquired in February 1978. It developed Diadem, an on-line economic forecasting and information system providing data on currency and trade relationships for Belgium, France, Germany, Italy, The Netherlands, United Kingdom, Canada, United States, and Japan.
  - The name and commercial claims processing portion of PAID Prescriptions, Inc. (Burlingame, California). PAID processes prescriptions for medical plans, insurance companies, labor unions, and self-insured organizations. Annual sales exceeded $5 million when it was acquired in February 1978.

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- CSC's INFONET is among the leading companies in the remote computing industry, based on revenues and profitability. This is a reflection both of the competitiveness of the product and the productivity of the INFONET organization, according to management.

- CSC's greatest strengths are the technical diversity, system design, and programming skill of its professional staff, and the experience of its management personnel.

KEY PRODUCTS AND SERVICES

- CSC reports on its activities in two segments:

  - Contract services, including development of customized systems, facilities management, and consulting.
  - Data services, consisting primarily of the INFONET remote data processing service.

- Contract Services.

  - Contract Services represented 72% of total revenues in fiscal 1978, down from 75% the year before. Systems development work generates the major share of contract services and total corporate revenues:

	Contract Services	Corporate Revenues
Systems Development	64%	46%
Facilities Management	30	22
Communications Engineering	6	4
Data Services	-	28
	100%	100%

  - In 1978, Contract Services revenue rose 12% to $199.1 million. The higher revenue and improved operating margins produced a 17% gain in operating income of $19.7 million. Operating income is before corporate overhead, interest, and taxes. The largest market growth was in the Federal area where revenue--fueled by major contract awards from NASA, the Department of Energy, and the Environmental Protection Agency--surged 33% above the 1977 level.

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- CSC's numerous multi-year contracts traditionally have provided a stable and growing revenue base for the company. In addition, Contract Services represent CSC's technological base. Through its work for the Federal Government, CSC has developed extensive expertise in large-scale data base structures, distributed processing, real-time interactive systems, transaction processing, and other advanced technologies in demand by Federal agencies.
- The company dramatically expanded its facilities management activities with its winning of a 5½ year, $130 million contract effective September 1, 1978 (fiscal 1979) to serve as fiscal intermediary for California's Medicaid program (known as Medi-Cal). The major proportion of revenue from this contract is expected to occur in fiscal years 1981-1984.

• Data Services.

- In 1978, CSC established a Data Services Group to concentrate on major opportunities in this field and initiated an acquisition program to supplement internal growth. The major element of the group is INFONET, CSC's fastest growing and most profitable activity.
- Data Services revenue of $77.8 million in 1978 represented a 35% jump over the prior year. About $9 million of the gain came from consolidation of Canadian operations, and two small acquisitions late in fiscal 1978. INFONET operations grew 19% over 1977. Operating margins narrowed due to the initial costs of developing INFONET's European markets, and the consolidation of less profitable activities. As a result, operating income rose 18% to $16.2 million.
- INFONET is used by commercial and government clients for business planning and control, data management, engineering design, and statistical analysis. The communications network serving North America and Western Europe is accessible via the global Telex system. Affiliated companies provide INFONET service in Australia and South Africa. The system provides interactive and remote batch processing from a wide variety of low-speed to high-speed terminals, and affords various other full-service conveniences to the user.
- CSC's data services acquisitions in 1978 were: Economic Models Limited, which provides econometric forecasting services via INFONET, and PAID Prescriptions (see page 1).

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INDUSTRY MARKETS

- Contract Services

  - CSC's fiscal 1978 Contract Services business was derived from the following industries:

Federal Government		78%
NASA	29%	
Navy	23	
Air Force	8	
Defense Comm. Agency	4	
Other Federal	14	
State and Local Government		9
Commercial		6
International		7
Total Contract Services		100%

- Data Services

  - Data Services' fiscal 1978 revenues were split as follows: Federal Government 54%, commercial 46%. Because of greater emphasis on the commercial sector and a change in the Federal Government procurement practices for remote data processing services, the proportion of commercial services will grow.
  - Fiscal 1978 revenues are divided as follows:

Government:		54%
GSA	16%	
Defense	16	
Agriculture	5	
HUD	2	
HEW/Social Security	5	
Other	10	
Commercial		46%
Services	15	
Manufacturing	15	
Utilities/ Transportation	6	
Insurance/Finance	5	
Other	5	
		100%

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GEOGRAPHIC MARKETS CSC has more than 80 locations throughout the world. Principal offices are in Falls Church, VA; El Segundo, CA; Montreal, Quebec; and Brussels, Belgium.

COMPUTER HARDWARE AND SOFTWARE

- INFONET service is based on CSC's proprietary software, Computer Sciences Teleprocessing System (CSTS), which operates on Univac equipment. Fourteen Univac 1108 systems were in the network in 1978. The company has announced plans to upgrade INFONET to Univac 1100/80-series equipment, beginning in fiscal 1980. The transition will be phased over several years.
- INFONET also offers IBM System/370 service as a supplemental capability to CSTS.

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cc: Jim Furlong
cc: Gail Hepard

COMPANY HIGHLIGHT

COMPUTER SCIENCES CORPORATION
650 North Sepulveda Blvd.
El Segundo, CA 90245
(213) 678-0311

William R. Hoover, President
Public corporation, NYSE
Total employees: 7,800 worldwide
Total revenues, fiscal year end 4/1/77: $234,745,000

THE COMPANY

- Computer Sciences Corporation (CSC), founded in 1959 in Nevada, was one of the first companies to provide systems software and consulting. It has since expanded its professional (contract) services to include systems engineering and development, communications engineering, and facilities management, and offers remote data processing services through its INFONET network.

- The company's revenues increased from $177.3 million in fiscal 1975 to $219.9 in 1976, a 24% growth while net earnings grew from $3.6 million to $7.2 million, a leap of 98%.

- Fiscal 1977 revenue growth was not as dramatic: revenues increased $15 million to $235 million, a 7% growth. However, net income continued to improve as the positive impact of Infonet's operations and improved margins in the contract service business became amplified. Earnings from operations grew from $7.2 million in 1976 to $11.6 million in 1977, a 61% increase. In addition, $3 million was added as an extraordinary item, increasing 1977 net profit to $14.6 million.

- A financially leveraged company, CSC has a debt to equity ratio of 1.4:1. As the company improves this ratio and strengthens its financial posture, management can start a meaningful acquisition program. This will accelerate the company's diversification efforts and reduce the proportion of revenues derived from the government market.

- CSC's INFONET is among the leading companies in the remote computing industry, based on revenues and profitability. This is a reflection both of the competitiveness of the product and the productivity of the INFONET organization.

- CSC's greatest strengths are the technical system design and programming skill of its professional staff and the experience of its management personnel.

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KEY PRODUCTS AND SERVICES

- CSC's business can be segmented into two broad groups: INFONET (the international remote computing service) and Contract Services.

- CONTRACT SERVICES

  - Contract Services represented 75% of CSC's business in fiscal 1977. Of this, systems development generated more than half as shown below:

	Contract Services	Total Corporate
Systems Development	67%	50%
Network	--	25
FM	25	19
Comm. Engr.	8	6
	100%	100%

  - During 1977, Contract Services operating income (before taxes and corporate charges) grew 34% while revenues grew only 3%. This 3% revenue growth is 11% below Contract Services' 10-year average rate. According to management, most of this decline resulted from a slower growth rate of revenues from the Federal Government, a leveling off of European and Mideast revenues, and the completion of a Canadian contract. New orders in the last quarter of FY 1977 point to an upturn in Federal Government business in FY 1978 and beyond. A return to historical growth levels overall is forecast for FY 1978. The majority of contract services' annual revenues stem from multi-year contracts which provide a stable revenue base.

  - Specific projects include facilities management for Federal, county, and local government agencies as well as commercial enterprises; development and integration of computer communications systems for the armed forces; and software design and development for NASA's space program.

- INFONET

  - INFONET is the most rapidly growing and most profitable part of CSC. It offers remote computing and interactive services with a broad range of software. It is used by government and commercial clients for business planning and control, engineering and statistical analysis, and data management.
  - Infonet revenues grew from $37.9 million in 1975 to $48.4 million in 1976, a 28% growth. FY 1977 INFONET revenues were $57.7 million, a 19% growth over 1976. FY 1977 operating income was $13.7 million, up 25% over $11 million in 1976.

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- Distribution of INFONET personnel is estimated as follows:

Marketing	37%
Administration	17
Research & Development	4
Operations	42
	100%

INDUSTRY MARKETS

- Contract Services

  - CSC's 1977 Contract Services business was derived from the following industries:

Total Federal		65%
NASA	25	
Navy	22	
Air Force	6	
Defense Comm. Agency	4	
Other Federal	8	
State & Local		8
Commercial		7
International		20
TOTAL CONTRACT SERVICES		100%

- INFONET

  - INFONET's 1977 revenues can be split as follows: Federal Government 61%, commercial 39%. Because of greater emphasis on the commercial sector and a change in the Federal Government procurement practices for remote data processing services, the proportion of commercial services will grow.
  - Infonet's 1977 revenues are divided as follows:

Government: 61%

GSA	22%
Army	9
Navy	6
Agriculture	4
HUD	3
Postal Service	2
Other	15

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Commercial:		39%
Services	13%	
Manufacturing	12	
Utilities/Trans.	5	
Insurance/Fin.	4	
Other	5	
		100%

GEOGRAPHIC MARKETS: CSC has more than 80 locations throughout the world. Principal offices are in Falls Church, VA; El Segundo, CA; Montreal, Canada; and Brussels, Belguim.

COMPUTER HARDWARE AND SOFTWARE INFONET service is based on CSC's proprietary software, Computer Sciences Teleprocessing System (CSTS), which operates on Univac equipment. In 1977, CSC utilized 11 Univac 1108 computers in its U.S. network. In FY 1978, CSC plans to offer service on IBM 370 equipment as a supplemental capability to CSTS.

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for update G2 77(10/31/76)
See CSC presentation for NY
Cpt cln Industry Catalyst Grp
11/3/76

COMPUTER SCIENCES CORPORATION

SUMMARY AND CONCLUSIONS

- CSC, a leading computer services company, is undergoing a sharp financial recovery which could almost double its net profit between FY 1976 and 1977. This turnaround will enable the company to pay off its bank debt and to pursue its quest for new acquisitions.

- The management has indicated that although growth through acquisition is not a primary objective, the selective acquisition of companies to strengthen or expand the key capabilities and markets of the company will be utilized in the future.

- CSC is heavily dependent on Federal Government business which presently accounts for 63% of revenues. Although the multiple contracts are controlled by a large number of agencies and their duration is often quite long, the profitability of the business is relatively low.

- The company has endeavored to diversify into the commercial market, and INFONET is the leading edge of the effort. Almost half of fiscal profits were derived from INFONET, yet INFONET accounts for just 22% of total CSC revenues. This high contribution to profits by INFONET is especially notable in view of the fact that over half its sales are derived from the Federal Government through a blanket GSA contract. With its 1400 customers, INFONET is the fastest growing segment of the company.

- The management team is young yet experienced and has been with the company for a long time.

- Commercial marketing is probably the weakest area of the company, while technical competence in software and data communications is the strongest. There are historical reasons for this imbalance which are highlighted in the text.

COMPUTER SCIENCES CORPORATION
650 North Sepulveda Boulevard
El Segundo, California 90245
(213) 678-0311

William R. Hoover
Chairman and President
Public Corporation,
widely held

Total Company and Computer and Computer Services Sales as of Fiscal Year Ending April 2, 1976: $219,910,000

NUMBER OF EMPLOYEES engaged in computer services: 7196

Shown below is a table of employment since 1959, the year CSC was founded:

Fiscal Year	Total Number of Employees (Worldwide)
1959	12
1960	35
1961	55
1962	89
1963	189
1964	228
1965	954
1966	1353
1967	2415
1968	3440
1969	3660
1970	3492
1971	4069
1972	4500
1973	5673
1974	6585
1975	7053
1976	7196

An additional 1000 people employed by CSC subsidiaries and foreign affiliates are available for reassignment to work with CSC.

KEY PRODUCTS/SERVICES:

CSC is one of the largest independent computer services companies in the U. S. Its 1976 revenues of almost $220 million can be segmented as follows:

Facilities management	20%
Remote computing	22%
Professional (software) services	58% *
	100%

The Information Network Division (INFONET) provides remote computing services and accounts for 22% of revenues and approximately 1400 customers. Facilities management and professional (software) services are performed by other divisions of the company and are grouped as "Contract Services" for financial reporting purposes and account for the remaining 78% of revenues. The total number of CSC customers is estimated at 5000.

1976 Contract Services Revenues:

Revenues for contract services, which accounted for $171,417,000 of 1976 sales can be further segmented as shown below:

Systems development and consulting	60%
Facilities management	26%
Communications systems engineering	8%
Turnkey systems	6%
	100%

* Includes leasing, which is being phased out, and software products, which account for less than 1% of sales.

Contract services revenues were distributed by type of contract for 1976, 1975 and 1974 as follows:

Source	1976	1975	1974
Cost based contracts, which consist of cost plus incentive fee, cost plus award fee and cost plus fixed fee contracts.	57	69	68
Time and material contracts, which call for payment at a fixed rate per hour of services rendered plus those directly attributable costs.	11	11	9
Fixed price and other contracts	32	20	23
	100%	100%	100%

There is an obvious attempt to reduce the low profit segment, namely the "cost plus" segment in favor of more profitable business pursuits.

CSC identifies its services by division and function as follows:

- Information Network Division (INFONET)
  - Remote computing
  - Timesharing
  - Batch processing
  - Problem solving packages
- Commercial Division
  - Systems software
  - Systems analysis and programming
  - Facilities management
  - Application packages
- Systems Sciences Division **
  - Data reduction
  - Mission support
  - Pollution control
  - Systems analysis and scientific programming
  - Simulation and modeling
- Systems Division **
  - Communications

** Organized together under "Systems Group."

Systems engineering
Systems analysis and programming
Operations research
Management consulting
Aerospace sciences

- Energy Research Division (formerly Atomic Energy Division) **
  Geophysics
  Seismics
  Mining technology
  ERDA (Energy Research Development Agency) support

- Applied Technology Division (formerly Field Service Division) **
  Support and communications maintenance, similar to other services divisions, but on site
  Facilities management
  Simulation
  Communications modeling

- Multi-divisional services
  Application software technology
  Information systems development
  Requirements analysis and system design
  Problem solving
  Project management and quality assurance
  Facilities management
  Systems engineering

- Systems International Division **

Key Products Offered by INFONET

- FLARES, Financial Language for Analysis and Reporting System: Modules used by business and government management, planners and analysts include budgeting, lease versus purchase decisions, profit planning, cash management, risk and sensitivity analysis, effects of proposed legislation, general ledger accounting, fixed asset accounting, accounts payable, accounts receivable, wage, salary benefit administration, tax reporting, and inventory management. FLARES contains a FIPAC library and has graphics capability.

- MONEYMAX optimizes choices of securities investment. Used by company controllers and treasurers.

- ENCORE: an on-line graphic display system which transforms tabular data such as time series into graphic displays. It expands capabilities of FPS, Financial Planning Simulator.

** Organized together under "Systems Group."

- ALADIN, A Language for Decision Information: a report writer designed for creating, defining and accessing data bases. It can be interfaced with FLARES and ENCORE.

- IGIM, Infonet's Generalized Information Management System: a data management system licensed by TRW.

- System 2000: a data management system, developed and licensed by MRI Systems, which is capable of supporting hierarchically structured data bases.

- IFMS, Integrated Force Management System: designed for the telephone industry to forecast, schedule and assign telephone operators.

- GAINS, General Adaptive Inventory System: an inventory management system used for forecasting, cost control, balance, cash flow.

- Time Series Processor (TSP): a newly announced statistical analysis program used for econometric research. Developed at MIT and Harvard, the packages include regression analysis, matrix inversion operations and time series generators.

- TRAC: for circuit and reliability analyses.

- ANSYS: for engineering analysis, such as linear, non-linear, static and heat transfer analyses.

- TRIFLX: for piping flexibility analysis. Developed by AAA Technology and Specialties Company, Inc.

- GASPX: for civil engineering structural analyses, such as determination of minimum and maximum values for number reactions resulting from the frame analysis. Developed by Swan Wooster Engineering Company, Ltd.

- STRESS: for civil engineering structural analyses, such as linear analyses of elastic, statically loaded frame structures.

- SUPERB: for engineering structural analyses such as cross section, frame linkage, and rotating machinery analysis.

CSC has developed its own operating software, called Computer Sciences Teleprocessing System (CSTS). Debugging facilities available through CSTS include CSTS/GPS (General Programming System) and CSTS/BASIC.

Programming languages supported by Infonet include: FORTRAN, COBOL, BASIC, and Assembly Language.

The Information Network Division bids contract proposals on a customized basis. The most significant contract was awarded to INFONET by the Federal Government, General Services Administration. Revenues from this contract for 1976 were $28.5 million.

CSC's increasing emphasis on both minicomputers and the commercial market is illustrated by the recent delivery of custom software to NCR by the Commercial Division. This software developed for the NCR 8200 minicomputer series, provides interactive applications for the wholesale distribution, the healthcare information and the financial management industries. It would be reasonable to assume that the next development could interface minicomputers into the INFONET network.

APPLICATIONS: Most initial applications developed by INFONET were scientific. Applications have become more business-oriented with the growth of the Information Network Division. Shown below is a distribution of 1976 revenues by application:

Business and data management	63%	ESTIMATED
Scientific	35%	ESTIMATED
Data base	2%	ESTIMATED
	100%	ESTIMATED

Specific applications offered include:

- Business and data management
  - Business planning and control
  - Financial analysis
  - Budgeting
  - Lease versus purchase decisions
  - Profit planning
  - Cash management
  - Risk and sensitivity analysis
  - General ledger accounting
  - Fixed asset accounting
  - Accounts payable
  - Accounts receivable
  - Real estate analysis
  - Skills inventory
  - Wage, salary and benefit administration
  - Payroll
  - Sales analysis
  - Inventory management
  - Inventory stock status
  - Materials planning and control
  - Project evaluation
  - Reorder point analysis
  - Route scheduling and optimization

- Management science and engineering

  Statisical analyses include:

  - Correlation
  - Confidence intervals
  - Regression analyses
  - Time series
  - Significance
  - Critical path scheduling
  - Linear programming
  - Resource scheduling
  - Simulation

  Engineering applications include:

  - Electrical engineering analyses
  - Mechanical engineering analyses
  - Civil engineering
  - Structural engineering
  - Quality control and reliability
  - Communications
  - Network control
  - Circuit and message switching
  - Communications traffic summary
  - Communications error detection and correction
  - Telephone operator scheduling
  - Public Utility engineering
  - Air traffic control
  - Process control
  - Production control
  - Laboratory automation
  - Pollution control
  - Industrial process control
  - Urban planning
  - Crop production forecasting

INDUSTRY MARKETS: While CSC customers are distributed throughout several industries, the Federal Government is the source of 63% of total company revenues, as illustrated in the following table.

SOURCES OF CSC REVENUES

(Percent for 1976)

INDUSTRY SECTOR	CSC OVERALL	CONTRACT SERVICES	INFORMATION NETWORK DIVISION (INFONET) *
Federal Government			
National Aeronautics & Space Administration	18	23	—
Navy	17	22	8
Army	2	2	17
Air Force	3	5	—
General Services Administration	12	—	23
Energy Research and Development Administration	3	3	—
Agriculture	NA	—	8
Health, Education and Welfare	NA	—	10
Housing and Urban Development	NA	—	6
Executive Offices	NA	—	1
Defense	3	4	4
Interior	NA	—	4
Postal	NA	—	4
Transportation	NA	—	2
Veterans Administration	NA	—	1
Government Accounting Office	NA	—	2
Other	5	6	10
SUBTOTAL	63%	65%	100%
State and local government	4	5	—
Commercial sector	14	7	—
Services	NA	NA	33
Manufacturing	NA	NA	31
Utilities and transportation	NA	NA	13
Insurance	NA	NA	12
Construction	NA	NA	3

* Revenues derived through the Federal Government account for 60% of INFONET, and the commercial sector accounts for the remaining 40%.
NA = Not available

INDUSTRY SECTOR	CSC OVERALL	CONTRACT SERVICES	INFORMATION NETWORK DIVISION (INFONET)
Commercial sector (continued)			
Agriculture and mining	NA	NA	2
Wholesale/retail	NA	NA	1
International	19	23	5
SUBTOTAL	37%	35%	100%
TOTAL	100%	100%	100%
$ Sales for 1976	$219.9 million	$171.4 million	$48.5 million

The state and local government sector, which is the marketing responsibility of the Commercial Division, has been increasing dramatically for CSC due largely to Federally-funded programs in welfare, healthcare, justice and education. Contracts with local governments are currently running at about $12 million annually.

International revenues for 1976 were derived mostly through sales to Middle Eastern governments.

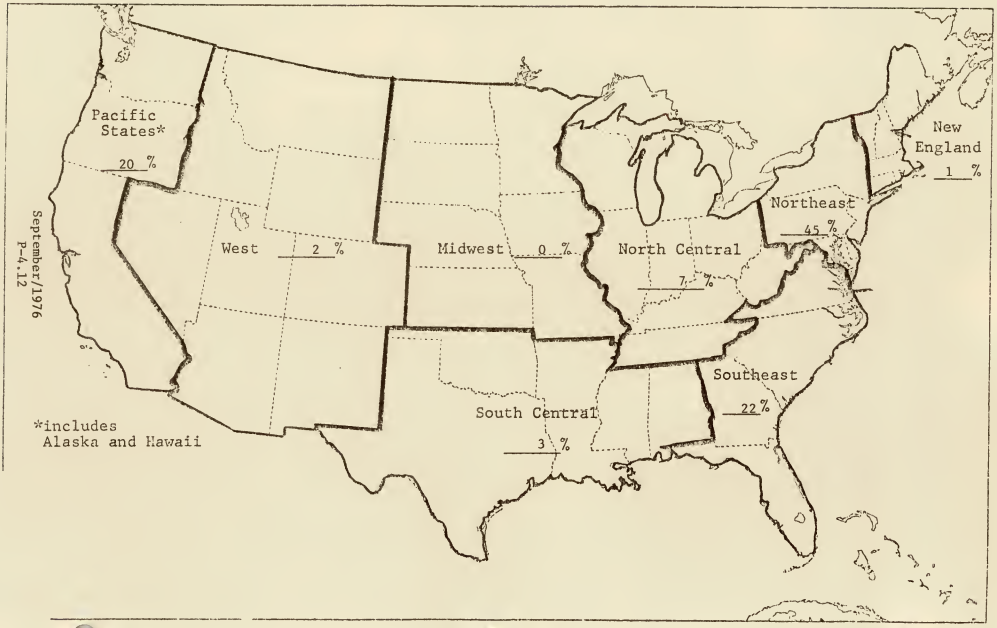
Shown below is a view of CSC's technical competence as represented by managerial and professional staff, distributed by functional and industry areas of expertise. This distribution is based on the analysis of 6000 technical and managerial personnel, some of whom have more than one area of specialty.

Manufacturing & distribution	8.7%
Information systems	43.3%
Communications systems	11.2%
Financial insurance systems	10.4%
Process control & utilities	10.4%
Energy control systems	1.7%
Health care systems	3.5%
Consulting & EDP audit	10.8%
	100.0%

GEOGRAPHIC MARKETS: CSC serves its U. S. customers from 69 offices located through the country. The firm also has offices in 28 cities abroad. U. S. revenues are concentrated in the northeastern and southeastern regions due to the large volume of business from the Federal Government. The map on the following page shows INPUT'S estimated distribution of revenues in the U. S. by geographic region.

DISTRIBUTION OF 1976 CSC REVENUES BY U. S. GEOGRAPHIC REGION

(Estimate by INPUT)



This map shows the 140,000 mile, worldwide network of the Information Network Division. Local access is available in over 125 U. S. cities.

COURTESY OF COMPUTER SCIENCES CORPORATION

Both domestic and international locations of CSC are shown by division in the following matrices.

MATRIX OF U. S. LOCATIONS BY CSC DIVISION

CITY	A	B	C	D	E	F	G
Albuquerque, N. M.						•	
Arlington, Va.	•				•	•	
Atlanta, Ga.	•		•		•	•	
Baltimore, Md.					•		
Bedford, Mass.						•	
Belton, Mo.						•	
Boulder, Colo.				•			
Chicago, Ill.			•	•	•	•	
Cincinnati, Ohio					•		
Cleveland, Ohio			•		•		
Cranford, N. J.			•				
Dallas, Tex.					•		
Denver, Colo.					•		
Durham, N. C.							•
Elmsford, N. Y.					•		
El Segundo, Calif.	•		•		•		
Falls Church, Va.	•	•		•		•	
Greenbelt, Md.				•	•	•	
Hackensack, N. J.					•		
Hampton, Va.				•			•
Honolulu, Hawaii						•	
Houston, Tex.					•		•
Huntsville, Ala.				•		•	
Hyattsville, Md.							•
Langley AFB, Va.				•		•	

* A = Corporate; B = Energy Research; C = Commercial Division; D = Applied Tech. Division; E = Information Network Division (INFONET); F = Systems Division; G = System Sciences.

CITY	A	B	C	D	E	F	G	*
Las Vegas, Nev.		•						
Los Angeles, Calif.	•		•		•	•		
Miami, Fla					•			
Middletown, R.I.						•		
Milwaukee, Wis.					•			
Minneapolis, Minn.				•				
Moorestown, N. J.						•		
Mountain View, Calif.				•	•			
New York, N. Y.					•			
Newark, N. J.			•					
Newton, Mass					•	•		
Oak Brook, Ill.	•		•		•			
Omaha, Neb.						•		
Paramus, N. J.					•	•		
Parsippany, N. J.			•					
Pasadena, Calif.				•				
Philadelphia, Pa.					•			
Phoenix, Ariz.					•	•		
Pittsburgh, Pa.					•			
Pomona, N. J.							•	
Portland, Ore.					•			
Pt. Mugu, Calif.				•				
Richland, Wash.					•			
Ridgecrest, Calif.				•				
Rosemead, Calif.			•					
Rosslyn, Va.					•	•		
Salt Lake City, Utah			•					

* A = Corporate; B = Energy Research; C = Commercial Division; D = Applied Tech. Division; E = Information Network Division (INFONET); F = Systems Division; G = System Sciences.

CITY	A	B	C	D	E	F	G	*
San Diego, Calif.				•	•	•		
San Francisco, Calif.				•	•	•		
Santa Ana, Calif.			•		•			
Seabrook, Md.				•			•	
Seattle, Wash.			•		•	•		
Silver Spring, Md.					•	•	•	
Southfield, Mich.					•			
Tacoma, Wash.			•					
Torrance, Calif.			•					
Trevose, Pa.						•		
Vandenberg AFB, Calif.						•		
Virginia Beach, Va.						•		
Wallops Island, Va.				•				
Warminster, Pa.						•		
Washington, D. C.						•		
White Plains, N. Y.					•			
Wilmington, Del.				•				

* A = Corporate; B = Energy Research; C = Commercial Division; D = Applied Tech. Division; E = Information Network Division (INFONET); F = Systems Division; G = System Sciences.

MATRIX OF INTERNATIONAL LOCATIONS

BY DIVISION OF CSC

CITY	A	B	C	D	E	F	G	*
Amstelveen The Netherlands	•							
Bangkok, Thailand						•		
Brussels, Belgium	•							
Calgary, Canada					•			
Canberra, Australia					•			
Cape Town So. Africa					•			
Durban, So. Africa					•			
Edmonton, Canada					•			
Frankfurt, Germany						•		
Johannesburg So. Africa	•				•			
London, England	•							
Madrid, Spain					•			
Melbourne, Australia					•			
Milan Italy	•							
Montreal, Canada	•				•			
Munich, Germany	•					•		
Ottawa, Canada					•	•		
Paris, France	•							
Pretoria, So. Africa					•			
Rome, Italy	•							
Sydney, Australia	•				•			
Tehran, Iran						•		

* A = International Division Hq.; B = Energy Research; C = Commercial Division; D = Applied Tech. Division; E = Information Network Division (INFONET); F = Systems Division; G = System Sciences.

CITY	A	B	C	D	E	F	G	*
Toronto, Canada					•			
Wellington New Zealand					•			
Winnipeg, Canada					•			
Vancouver, Canada					•			
Braamfontein Transvaal, S. A.					•			
Eschborn, West Germany					•			

CSC's first step into the international market occurred in 1966 when it opened its wholly-owned European headquarters in Belgium.

* A = International Division Hq.; B = Energy Research; C = Commercial Division; D = Applied Tech. Division; E = Information Network Division (INFONET); F = Systems Division; G = System Sciences.

COMPUTER HARDWARE AND SOFTWARE:

INFONET operates its network on Univac 1108 equipment. Half of the 10 Univac 1108's in use are located in Oakbrook, Illinois, and the other half are in the El Segundo, California, data center. CSC has designed its proprietary operating system, called Computer Sciences Teleprocessing System (CSTS).

IBM capability is available through the network by using a combination of 1 IBM 360/195 OS/MVT and "IBIS," which enables the automatic transfer of data between the Univac oriented system and the IBM equipment.

NAMES AND LOCATIONS OF SUBSIDIARIES AND AFFILIATES:

Name of Subsidiary *	Country or State	Percent Ownership
CSC Systems International. Inc.	Panama	100%
CS Computer Leasing of Canada, Ltd. (Leasing operation is being phased out.)	Canada	100%
Computer Sciences International B.V.	Netherlands	100%
INFONET Belgium SA	Belgium	100%
Computer Sciences Canada, Ltd.	Canada	49%
Computer Sciences International France. 75% interest was sold to Thompson-Brandt.	France	25%
Computer Sciences Sigma, Ltd.	South Africa	19.9%
Computer Sciences of Australia Pty. Ltd.	Australia	18%
Computer Sciences International Italia S. p. A. (CSC has been decreasing ownership.)	Italy	5%

The following organizations exist on paper but are dormant.

Information Network Corp.	Nevada	100%

* In addition to these affiliates, CSC has entered into a licensing agreement with Entel-Ibermatica, a subsidiary of National Telephone Company of Spain, which provides the company exclusive rights to network services offerings in Spain.

DETAILED COMPANY PROFILE/COMPUTER SCIENCES CORPORATION

Name of Subsidiary	Country or State	Percent Ownership
Communications and Systems Inc.	Nevada	100%
Computer Sciences Field Service and Support Co.	Nevada	100%
City Planning Associates, Inc.	Indiana	100%
Environmental Research Corp.		100%

CSC has divested of the following organizations.

Commonwealth Services Inc.

Computax Services, Inc. - final portion of ownership divested in 1972

Computicket Corp. - defunct. Operations were closed down in 1970 following a net after-tax loss.

Auselda S. p. A. - Italy - totally divested following reduction in ownership.

KEY EXECUTIVES AND BIOGRAPHICAL SKETCHES:

The CSC Board of Directors consists of four inside directors and two outside directors. The experience and longevity of the top management team is an important factor in CSC's success. George Barratt is the only addition to the team during the past three years; everyone else is a veteran. The management team consists of:

William R. Hoover, Chairman, President and Director - age 46

Prior to joining CSC, Mr. Hoover was associated for ten years with the Jet Propulsion Laboratory at the California Institute of Technology. During that time he managed the computer data systems section and also was responsible for the implementation of a number of advanced computer systems. Mr. Hoover joined CSC in 1964 when sales were $4 million. In 1968 he was elected to the board and was named executive vice president in 1969. Mr. Hoover succeeded Fletcher Jones as President following Jones's death in a private airplane accident in 1972. Hoover earned his B.S. and M.S. degrees in mathematics at the University of Utah.

Roy Nutt, Vice President, Director - age 45

Mr. Nutt is a co-founder of CSC, along with Fletcher Jones.

Prior to founding CSC, Nutt was affiliated with United Aircraft Corporation for seven years working in programming research and development. He is regarded as one of the technical founders of the software industry and still provides technical direction to CSC's efforts in the development of large software projects. Mr. Nutt is a member of the Computer Science and Engineering Board of the National Academy of Sciences and hold a B.S. degree from Trinity College.

Alvin E. Nashman, Vice President; President, Systems Division; Director - age 49

Dr. Nashman joined Computer Sciences in 1965 when CSC acquired ITT Intelcom and ITT Communications Systems, Inc. These two former subsidiaries of International Telephone and Telegraph were subsequently combined into a single division with Dr. Nashman as president. He began his 13 year association with International Telephone and Telegraph in 1952 where his responsibilities included directing research and development activities of the Missile Systems Laboratory of ITT Federal Laboratories. He was later director of operations for ITT Intelcom where he acted as systems engineer and technical advisor to the Defense Communications Agency. Dr. Nashman is a member of both the national board and the local Washington D. C. board of directors of the Armed Forces Communications and Electronics Association. Dr. Nashman earned a B.S. degree at City College of New York and an M. S. degree at New York University.

George Barratt, Vice President, Finance, Director - age 48

During the past fiscal year, Mr. Barratt replaced Mr. Sikora as Vice President of Finance. Prior to joining CSC, Barratt was President of First Healthcare Corporation, a wholly-owned subsidiary of CNA Financial Corp. He was affiliated with Arthur Andersen & Co. during the first 20 years of his career, following graduation from college. Barratt was Managing Partner of the Phoenix office at the time he left to join a regional investment banking and brokerage firm in Phoenix where he had served as a director. Subsequently he became the Vice President of Financial Services of Heizer Corp., a venture capital firm. He is a member of the American Institute of Certified Public Accountants.

CSC's two outside directors on its board are:

Felix A. Kalinski, President of Humphreys, Inc., an equipment distribution company.

Robert H. Bolman, management consultant and retired banker

Additional key people include:

Vincent R. Grillo, Jr., Vice President of Program Development - age 50

Mr. Grillo joined CSC in 1964 and was named to his present position in 1969. Responsible for the company's business development, he directs the corporate marketing program for all of CSC's operating units and subsidiaries and for the development of the programs through which the company provides its management and technical services. Prior to joining CSC, Grillo held several marketing management positions with Univac Division of Sperry Rand for over a 10-year period. He also directed government marketing activities for C-E-I-R and was both founder and President of Computer Dynamics Corporation, a data processing support firm. Mr. Grillo holds a B.A. degree in economics and business administration from the University of Maryland.

Ezra D. Grodner, Vice President and Secretary - age 44

Mr. Grodner succeeded James W. Z. Taylor as secretary and director in 1971. Since joining CSC in 1965, Grodner has also held positions as corporate counsel, director of finance and administration and director of contracts. Prior to joining CSC, he was associated with Humble Oil and Refining Co. and Hughes Aircraft and was also an attorney in private practice. Grodner received his B.A. and LL.B. degrees from the University of Pittsburgh.

John W. Luke, President, Information Network Division (INFONET)

Mr. Luke was named vice president of marketing for the Information Network division shortly after joining the company in 1968 and became president of INFONET in 1970. Mr. Luke was associated with IBM for 18 years prior to joining CSC. He held a number of marketing management positions with IBM and served as the director of the firm's center for systems research and development. Research and development activities there included solution of computer related problems in areas of reactor physics, high-energy physics and atmospheric physics as well as laboratory automation. Mr. Luke holds an A.B. degree in mathematics from the University of Utah and an M.S. degree in mathematics and physics from Stanford University.

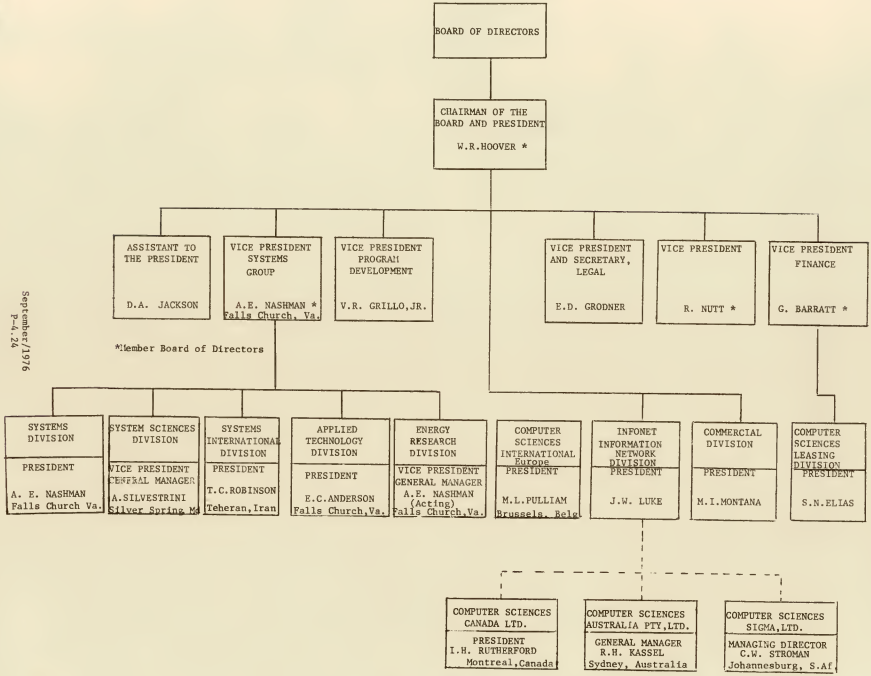
Dr. M. I. Montana, President, Commercial Division

Prior to becoming the president of the Commercial Division in early 1975, Dr. Montana served in numerous senior positions within CSC since 1967. His computing industry career began in 1955 when he joined IBM in a special training program designed for employees holding advanced degrees. He later held a series of marketing positions, including Manager of Sales Programs for IBM World Trade Corp. in Paris, and Director

of Marketing for all IBM products and services throughout Europe, Africa and the Middle East. A native of Italy, Dr. Montana became a U. S. citizen in 1958. He received his Ph.D. in economics at the University of Florence.

DETAILED COMPANY PROFILE/COMPUTER SCIENCES CORPORATION

CSC ORGANIZATION CHART



*Member Board of Directors

September/1976
F-4.26

Note: located in Corporate Offices unless designated otherwise.

FINANCIAL RATIOS AND HIGHLIGHTS

Financial Ratios		Fiscal Year 1976
Return on Investment	Net Income / Total Assets	6.5%
Return on Total Equity	Net Income / Shareholder's Equity	32.4%
Gross Margin	Income Before Taxes / Revenue	6.6%
Debt/Equity Ratio		2.2:1
Stock Price Range		8 - 4 *
Shares Outstanding		14,275,209
Price Earnings Ratio, based on lowest stock price		7.8
Price Earnings Ratio, based on highest stock price		15.7
Earnings Per Share		$.51
Cash Dividends Per Share		None

Financial Data	Fiscal Year 1976
Net Worth	$22,293,000
Working Capital	$30,955,000
Income Before Taxes	$14,459,000
Net Income	$ 7,233,000
Current Assets	$68,229,000
Current Liabilities	$37,274,000

* CSC Stock is traded on the New York Stock Exchange

CSC CONSOLIDATED INCOME STATEMENT

FIVE YEAR SUMMARY

	FISCAL YEAR ($ MILLIONS)				
	1976	1975	1974	1973	1972
Revenues:					
Contract Services operations	$171.417	$139.446	$123.966	$106.079	$100.298
Infonet operations	48.493	37.905	23.012	14.421	—
Total Revenues	219.910	177.351	146.978	120.500	100.298
Expenses:					
Contract Services operations:					
Costs of services	145.346	116,801	98.661	83.304	79.809
Operating overhead	8.916	9.383	10.084	8.507	7.653
Provisions for contract losses and government audit adjustments	—	—	—	5.606	.600
Depreciation and amortization	4.602	4.538	4.380	5.141	5.416
Additional depreciation of computer leasing portfolio	—	—	—	5.988	—
	158.864	130.722	113.125	108.546	93.478
Infonet operations:					
Costs of services	30.624	24.125	16.764	17.022	—
Operating overhead	3.282	2.614	2.340	1.928	—
Depreciation and amortization	3.613	3.284	2.689	2.115	—
	37.519	30.023	21.793	21.065	—
Operating income, before corporate charges and other items:					
Contract Services operations	12.553	8.724	10.841	(2.467)	6.820
Infonet operations	10.974	7.882	1.219	(6.644)	—
	23.527	16.606	12.060	(9.111)	6.820
Corporate charges:					
Interest expense	4.291	5.291	6.092	6.662	2.865
General and administrative	4.777	4.088	3.764	3.418	3.226
	9.068	9.379	9.856	10.080	6.091
Income (loss) from continuing operations before items below	14.459	7.227	2.204	(19.191)	.729
Earnings from sale of Computax Services, Inc	—	—	—	—	5.517
Costs of proprietary systems previously deferred	—	—	—	—	(62.827)
Income (loss) from continuing operations before taxes	14.459	7.227	2.204	(19.191)	(56.581)
Taxes on income (credit)	7.226	3.582	1.102	(9.677)	(19.251)
Earnings (loss) from continuing operations	7.233	3.645	1.102	(9.514)	37.330
Earnings of subsidiary sold, net of taxes	—	—	—	1.550	1.581
Gain on disposition of subsidiary and sale of investment originating therefrom	—	—	.464	8.100	—
Net earnings (loss)	$ 7.233	$ 3.645	$ 1.566	$ .136	$(35.749)
Average No. Outstanding Shares (total)	14,275,209	14,237,567	14,041,868	13,569,389	13,365,741
Earnings (loss) from continuing operations	$.51	$.26	$.08	$(.70)	$(2.79)
Earnings of subsidiary sold	—	—	—	.11	.12
Gain on disposition of subsidiary and sale of investment originating therefrom	—	—	.03	.60	—
Net earnings (loss)	$.51	$.26	$.11	$.01	$(2.67)

Financial Posture:

Heavy operating losses resulted from the investment in the INFONET Division during its first few years of startup and operation. Most of the $100 million investment in INFONET was made between 1970, when the service was first offered, and 1972. By 1972 CSC had accumulated nearly $47 million of bank and computer financing debt. CSC anticipates paying off the remaining $10 million of this bank debt (as of March 1976) within a year.

Stockholder equity has improved since CSC recorded a net loss of $35.7 million in fiscal 1972. It has risen from $6 million in 1972 to over $22 million in 1976.

A change in financial reporting procedures accounts in large part for the magnitude of the 1972 loss. In keeping with accepted accounting practices, CSC deferred development costs for INFONET up to 1972. In 1972 the firm charged the development costs against revenues in that accounting period. This change meant writing down about $63 million of previously deferred costs as well as those incurred during fiscal 1972. This change in financial reporting also caused stockholder's equity to decrease from $41 million in 1971 to $6 million in 1972.

CSC has clearly strengthened its financial position by reducing its debt and increasing its profitability.

Expense and Personnel Distribution:

Total operating expenses of $196.3 million in 1976 represented 89.2% of revenues. Because of CSC's government contractor orientation, only a very small portion of these expenses are regarded or recorded as "marketing costs." Thus, for example, the cost of proposal writing is counted as administrative or operational costs rather than marketing. Operational costs on the other hand tend to be high because of the project orientation of government contract work.

The allocation of the 800 employees in the Information Systems Division shown below by function corresponds more closely with other services companies.

PERSONNEL ALLOCATION BY FUNCTION

CSC INFORMATION SERVICES DIVISION

For FY 1976 (Estimate)

FUNCTION	NUMBER OF PERSONNEL	PERCENT OF TOTAL
Marketing	300	37%
Administration	135	17%
Research and Development	30	4%
Operations	335	42%
TOTAL	800	100%

Within marketing, the ratio of sales representatives to technical representatives is currently running fairly close to 1:1 within INFONET. This ratio used to be closer to 1:2. Only about 12 INFONET personnel are currently located outside the U. S. Personnel of other CSC divisions are loaned to INFONET (and other divisions) when needed.

MARKET POSITION, COMPETITIVE AND MANAGEMENT POSTURE:

Founded in 1959, CSC began supplying software and consulting (professional) services to manufacturers of computers. The first stage of CSC's evolution was characterized by its concentration on supplying systems software to computer manufacturers. Development of systems software included design and implementation of compilers, operating systems and utility programs. CSC's first project was FACT, a compiler for Honeywell, followed by LARC, a scientific compiler for Univac. Next CSC developed the operating system, processors and compilers for the Univac 1107. This earned CSC recognition as a major force in the software industry.

CSC Software Reputed "Cadillac" of the Industry

CSC established its reputation for technical excellence in the software and services industry very early. Compilers developed by CSC are among the fastest in the industry and are recognized in particular for their efficient object code. Recently more emphasis has been placed upon developing software for minicomputers.

Management anticipates more direct interaction between the end user and the computer, which is reflected in the efforts directed toward turnkey systems. Furthermore, management recognizes the resulting need for improved software quality and reliability, better methods of estimating software development costs and schedules, and for nonprocedural languages. These needs present new opportunities to a computer services firm such as CSC. In fact, the Systems Division views as a separate and emerging discipline "human factor analysis"—the transfer of information from machines to people.

Federal Government Biggest Customer; Trend to State and Local Sector

Today CSC is among the largest suppliers to the Federal Government of software, communications, distributive and turnkey systems, and facilities management. As indicated earlier, Federal Government sales account for 63% of revenues or about $138.5 million. Military contracts and GSA administered usage of Infonet account for a large share of this. It is difficult to assign an exact dollar value to these contracts, because they typically extend over a period of years and contain options to expand and renew.

State and local government and international operations have been accounting for a larger share of sales. The banking and healthcare industries have also been major targets of marketing. For example, CSC has held "orientation sessions" for top and middle management from Blue Shield and Blue Cross. This is part of the firm's plan to design and implement a system that provides a uniform standard on which to base new healthcare services. In addition to "orientation sessions," another marketing tool employed by CSC is its expertise in software verification and validation. This has become an important ingredient in winning defense contracts, and management believes that spiralling software costs will generate defense contracts which include verification and validation certification by independent contractors. In anticipation of this, CSC's system development staff participated in conferences of verification and validation of software.

Some 400 CSC personnel operate the computer facility at the NASA Marshall Space Flight Center in Huntsville, Alabama, which is an example of one of the large facilities management contracts won by CSC.

Third Party Leasing De-emphasized

CSC entered the third party leasing business in 1968 along with several other optimistic suppliers. In 1969 some $50 million worth of computers were purchased—half Univacs and half IBM 360's. During the early 1970's, CSC management decided not to acquire any more hardware. It is anticipated that any remaining Univac equipment coming off lease will be used by INFONET. Most leased IBM equipment is on full payout agreements.

Increased Emphasis on Network Services with INFONET

INFONET sales have grown from nothing to $48.5 million since operations began in 1970. By 1970, the management recognized the need to diversify and to reduce CSC's dependence on defense work. INFONET operated at a loss at first but is now profitable. In fiscal 1976 it contributed about half the corporate operating income. Furthermore, its 1976 growth of 28% can be attributed to the growing number of customers, increase in the average size account and to the renewal and expansion of the Federal GSA contract. Management maintains that INFONET has now passed all remote computing companies with the exception of General Electric and Control Data (including SBC). According to a recent poll, INFONET rates the highest in user satisfaction of the top five remote computing companies.

INFONET is now established as a major source of earnings for CSC, thus completing what President Hoover calls the "third phase of CSC's evolution." (The first phase was providing systems software to computer manufacturers and the second phase was expansion of technical capabilities and markets to serve end users of computers and communications directly.) In the future, INFONET should benefit from overseas expansion, additional government and commercial business, and new products currently under development which take advantage of INFONET'S sophisticated remote batch and interactive capabilities.

International Expansion

CSC has begun to emphasize international expansion, as evidenced by the recent satellite link established between Europe and the U. S. as part of Infonet. Reasons for entering the European market were:

- to increase and diversify Infonet's business with multinational companies, mostly U. S. based.
- to serve U. S. government offices overseas.
- to expand the range of services offered to European customers since the opening of the Brussels office in 1966.

Besides Europe, CSC also has affiliates in Canada, Australia and South Africa and a licensing agreement in Spain. It has been CSC's objective to affiliate with strong, highly reputed companies in foreign markets.

Aerospace Spin-offs a Growing Source of Competition

Most of CSC's business is obtained by submitting proposals requested from potential customers. Getting the business is a function of the firm's ability to offer better technical solutions, lower prices, faster completion, or some combination of these factors. Primary competition for the business includes other computer companies, such as Planning Research Corp., Systems Development Corp., Control Data, Tymshare, General Electric, TRW and IBM. Aerospace firms have been another source of competition. CSC is now in a position to successfully compete with large aerospace companies for prime contracts (as opposed to subcontracts) to develop complex communications networks.

OVERALL ASSESSMENT:

CSC is a very strong computer services company. Both revenues and profits have improved significantly over the past four years. Based on previous performance and future plans, revenues may increase by 17% to 18% during fiscal 1977, a rate which would make CSC a $500 million services company by the early 1980's. It should be noted at this point that a strong argument can be made that some of the functions performed by CSC for the Federal Government are not really "computer services" in the purest sense. The non-computer related activities of CSC such as engineering services, communication system design services, and allied sciences are congruent and compatible with the computer design activities. Capabilities in the above-mentioned areas of technology illustrate CSC's wide range of technical competence.

Acquisition Mode Needed to Sustain Growth

To sustain a 17%-18% rate of growth into the 1980's will require making some well chosen acquisitions. CSC's strong cash position is further justification for the firm to take an active position with respect to acquisitions—something the firm has not recently done. An active acquisition policy will place CSC in more direct competition with ADP and Tymshare. If CSC does assume an active acquisition role, this will call for a different type of personnel and policies, particularly in the commercial market.

IBM Capability Needed for Commercial Users

In order to continue growth and expansion, CSC will also need to develop and extend IBM processing capability, particularly for the commercial market. While CSC has invested heavily in its sophisticated Univac 1108 capability, this does not assure continued expansion through the 1980's with the existing system.

Independent Entities

The major divisions of CSC, particularly Information Services and Systems, operate as separate entities. This organizational mode has both positive and negative aspects. It is positive that each unit operates as a separate business with direct profit and loss responsibility. It is negative in that some potential synergy is lost by each unit tending to operate autonomously. Conceivably, services from each operation could be effectively combined as integrated services offerings to the commercial market.

Government Contracts a Mixed Blessing

Federal Government business, which accounted for 63% of 1976 revenues, has provided CSC with a business base that remains stable through business cycles. The contracts are usually long-term, spreading over several years. Furthermore, options contained in several contracts to extend and to expand have all been exercised.

The greatest drawback to government contracts is their low profitability and dependence upon a few large contracts such as those with GSA and NASA. The more CSC is able to move into the commercial market, the less it will have to depend upon low profit margins of Federal Government Contracts.

CSC

FIVE YEAR REVENUE GROWTH

($ Millions)

	INFORMATION SERVICES DIVISION (INFONET)		CONTRACT SERVICES		CSC TOTAL	
	Revenue	% Change from previous year	Revenue	% Change from previous year	Revenue	% Change from previous year
1976	$48.5	+ 28%	$171.4	+ 23%	$219.9	+ 24%
1975	$37.9	+ 65%	$139.5	+ 13%	$177.4	+ 21%
1974	$23.0	+ 60%	$124.0	+ 18%	$147.0	+ 22%
1973	$14.4	—	$106.1	+ 6%	$120.5	+ 20%
1972 *	—	—	$100.3	—	$100.3	—

* Since INFONET was formed, revenues for 1971 and 1972 have been restated to show zero, due to a change in financial reporting requirements. Prior to being netted against expenses, 1972 revenues for INFONET were $7.7 million, and in 1971, $3.3 million.

TOTAL CSC REVENUE GROWTH, 1960-1976

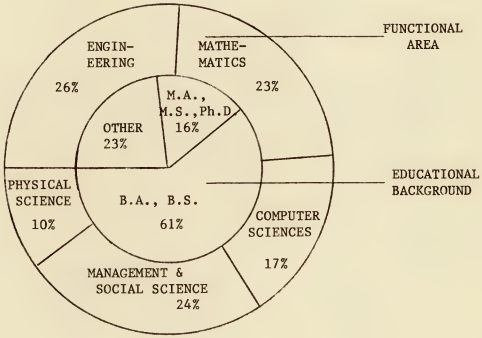
($ MILLIONS)

Fiscal Year	Total Revenues
1960	.23
1961	.62
1962	1.26
1963	3.38
1964	3.93
1965	6.30
1966	22.70
1967	38.80
1968	53.40
1969	64.90
1970	91.40 *
1971	97.20 *
1972	100.30 *
1973	120.50 *
1974	147.00
1975	177.40
1976	219.91

* Adjusted to exclude revenues of a subsidiary sold in February, 1973, Commonwealth Services, Inc.

Reduction in Personnel Turnover Needed

CSC attributes its success to its people and places a great deal of emphasis on their technical and professional backgrounds. As shown in the diagram below, 77% of CSC's 4610 professional and management personnel have earned at least a bachelor's degree. *



Educational backgrounds and work experience are in the fields of math, engineering, chemistry, physics, geology, economics, operations research and business administration. Members of the professional staff have an average of nearly 10 years experience in information sciences.

Recently these technical and professional staff members were mailed a questionnaire which is part of CSC's Skills Inventory System. It is used in conjunction with staff resumes to determine individual career opportunities and promotions. The system is also used for

* Note that the distribution of personnel by functional and industry area is presented in the discussion of Industry Markets. Note also percentage total exceeds 100%, because some members of professional and technical staff work in more than one functional area.

quickly marshalling personnel resources. This can make the difference in whether CSC wins or loses a contract.

Despite its emphasis on its personnel, CSC does have significant turnover, particularly in marketing. Turnover within INFONET'S sales force, for example, is approximately 25% per year. In view of the high cost of training, turnover must be reduced in order to assure sustained growth and profitability.

******

"I believe CSC has developed a business management and technical capability that provides a solid structure for future growth and profitability. The company has matured; it has stayed in the forefront technically; it has developed a stable financial base; and it has developed a highly capable marketing organization."

—William R. Hoover

COMPANY BRIEF

Primary Industry-Specific Market: Manufacturing

Computer Strategies, Inc.
3940 Peninsular S.E.
Suite 100
Grand Rapids, MI 49506
(616) 957-4444

CEO: Dale A. Colosky, President
Private Company
Founded: April 1980

Employees: 32 (6/86)
Revenue (FYE 12/31/85): $6-8 million

The Company: Writes application software, sells and supports turnkey systems, and provides professional services to automobile, appliance, and oil field supply manufacturers

Sources of Revenue:
- Turnkey Systems (65%)
- Professional Services (35%)

Key Products and Services: (Pick operating system-based)
- Turnkey Systems (Utilizes DEC VAX, IBM 43XX and 308X, Microdata, and Honeywell minicomputers)
  - Repetitive Manufacturing System
  - Automotive Release Control System

- Professional services
  - Education and training
  - Consulting
  - Custom programming

Target Industries:
- Appliance manufacturers
- Automobile manufacturers
- Oil drilling suppliers

Geographic Markets:
- U.S. and Non-U.S.
- Sales Offices: Detroit and Grand Rapids (MI)
- Independent Sales Representatives: Phoenix (AZ), Canada

Significant Events:
- Plans to open a subsidiary in France with Renault

October 1986

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Vendor Profile

A Publication from INPUT's Vendor Analysis Program – U.S.

August 1995

Computer Task Group, Inc.

Chairman & CEO: Gale S. Fitzgerald
800 Delaware Avenue
Buffalo, NY 14209-2094
Phone: (716) 882-8000
Fax: (716) 887-7246

Status:	Public
Employees:	4,907 (8/95)
Revenue:	$301,559,000
Fiscal Year End:	12/31/94

Key Points

- Computer Task Group (CTG), with nearly 30 years experience in the information technology (IT) industry, is a leading provider of software development, IT consulting and other professional services.
- In late 1993, CTG began an extensive re-engineering of its business, resulting in the divestiture of the hardware portion of its communications business, the sale of its Profimatics petroleum industry subsidiary, the development of a national recruiting database and a redefinition of its regional structure.
- In September 1994, David N. Campbell, CTG's Chairman and CEO announced his retirement after more than 25 years with CTG. Ms. Gale Fitzgerald, a CTG executive for three years, is now Chairman and CEO.
- During 1994, CTG repurchased a total of 2.5 million shares of its stock (representing 23% of its total shares outstanding at the beginning of the year), including the remaining 398,276 shares held by minority interest partner, IBM.
- CTG was recently named one of only eight service providers authorized to provide a range of technical, IT support, engineering and design services to IBM in the U.S. As a result of a competitive bid process and months of service quality assessments, IBM chose CTG a primary full-service provider from a field of 200. CTG fulfills all of IBM's

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needs through its National Delivery Team, which functions like a region, but focuses solely on filling skill requirements for IBM. The National Delivery Team also manages CTG's alliances with MCI and Hewlett-Packard.

Company Description

CTG provides a range of IT professional services to more than 750 parent company clients representing 1,800 divisions/locations worldwide.

The company's focus is on Professional Software Services and Information Technology Consulting. Services available through CTG include contract programming, business consulting, systems development and integration and managed support.

In May 1989, IBM made an equity investment in CTG, acquiring approximately 1.5 million shares of CTG preferred stock.

- As of December 31, 1994, IBM had sold all of CTG's shares, either back to CTG or on the open market.

- IBM is CTG's largest customer, with CTG providing services to more than 45 IBM locations.

Organization and Structure

Since 1993, CTG has redefined its regional structure, redrawing territorial boundaries and consolidating support functions such as sourcing, finance and administration to help delivery teams capture greater market share and bring decision-making closer to the client.

CTG's services are offered through a network of nearly 100 geographically dispersed delivery teams.

CTG's Professional Software Services has six regions with offices as follows:

- *Northeast* Region—headquartered in Syracuse (NY) with offices in Albany, Boston, Buffalo, Hartford, Hudson Valley, New York City/New Jersey, Rochester and Toronto.

- *Mid-Atlantic Region*—headquartered in Raleigh (NC) with offices in Baltimore, Charlotte, Delaware Valley, Greenville, Central Pennsylvania, Washington D.C. and Winston-Salem.

- *South Region*—headquartered in Atlanta (GA) with offices in Ft. Lauderdale, Jacksonville, Melbourne, Orlando and Tampa (FL) and Memphis and Nashville (TN).

- *Midwest Region*—headquartered in Merrillville (IN) with offices in Chicago, Cincinnati, Cleveland, Columbus, Detroit, Ft. Wayne, Grand Rapids, Indianapolis, Milwaukee and Pittsburgh.

- *Central Region*—headquartered in Dallas (TX), with offices in Austin, Denver, Des Moines, Houston, Kansas City, Omaha and St. Louis.

- *West Region*—headquartered in San Francisco, with offices in Anchorage, Phoenix, Portland, Salt Lake City, San Jose and Seattle.

CTG's Information Technology Consulting line of business, which provides offerings in Business Consulting, Development and Integration and Managed Support through CTG's network of 55+ locations, is headquartered in Buffalo (NY).

Outside the U.S., CTG has four operating subsidiaries:

- Computer Task Group of Canada, Inc., based in Toronto

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- Computer Task Group (U.K.) Ltd., with offices in Nottingham and Reading (England)
- Computer Task Group Nederland B.V.
- Computer Task Group Belgium N.V.

Company Strategy

CTG's restructuring was initiated in late 1993 to address the following issues:

- Improving responsiveness and sales presence
- Building a dynamic pipeline of talent
- Establishing a competitive cost structure
- Reducing overhead costs, moving as much as possible to variable costs
- Allowing decision-making to occur quickly and responsibly as close to the buyer as possible
- Divesting non-strategic businesses

CTG's business strategy is based upon the concept of being cost competitive while being responsive in supplying qualified staff to work on client engagements.

- CTG's services are now sold and delivered on a local level through its network of geographically dispersed delivery teams made up of sales managers, resource managers, business consultants, project managers, consultants and software engineers.
- In order to improve its responsiveness to client requirements, CTG reorganized its hiring processes. The company has a staff of more than 60 (sourcing) recruiting specialists located in five regional Sourcing Centers.
  - During 1994, these centers started using an electronic recruiting database to screen and monitor staff who are available to work on CTG's client programming needs. SmartSource™, CTG's unique sourcing ability, combines process, artificial intelligence-based technology and recruiting staff to create a nationwide pipeline of more than 150,000 qualified IT professionals. SmartSource ensures that the professionals recommended by CTG are qualified and have the highest quality skills.
  - In the first year the system was in place CTG created a qualified database of more than 100,000 candidates available for assignments. Today the system houses more than 150,000 resumes.
- In addition, the company's network of offices gives it wide geographic coverage with the capability of servicing large companies with multiple locations.

It is the company's goal to increase annual revenue by 10% in 1995 as compared to 1994 revenue from ongoing operations.

Financials

CTG's 1994 total revenue reached $301.6 million, a 2% increase over 1993 revenue of $295.5 million. Net income was $4.8 million, compared to a net loss of $27.7 million for 1993.

- During 1994, CTG recognized pretax gains of $10.6 million in the third quarter from the sale of its petroleum industry subsidiary—Profimatics, Inc.—and from the sale of its Network Systems Integration hardware support business.

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- Results for 1993 include $12.8 million in restructuring expenses and $21.3 million in impairment losses related to its extensive reengineering efforts.

A five-year financial summary appears below:

Computer Task Group, Inc.
Five-Year Financial Summary
($ Millions, except per share data)

Item	Fiscal Year				
	1994	1993	1992	1991	1990
Revenue	$301.6	$295.5	$302.7	$285.1	$243.9
• Percent change from previous year	2%	(2%)	6%	17%	5%
Income (loss) before taxes	$8.1	$(30.7)	$10.1	$1.6	$12.6
• Percent change from previous year	(a) 126%	(b) (404%	531%	(87%)	*
Net income (loss)	$4.8	$(27.7)	$5.6	$0.9	$7.2
• Percent change from previous year	117%	(595%)	529%	(88%)	*
Earnings (loss) per share	$0.52	$(2.62)	$0.56	$0.10	$0.77
• Percent change from previous year	120%	(568%)	460%	(87%)	*

* *Not meaningful*

(a) Includes an $11.3 million gain from the sale of various assets.

(b) Includes $12.8 million in restructuring costs and $21.3 million in impairment costs.

CTG's revenue from continuing operations was $284.4 million, a 6% increase over 1993's comparable revenue of $267.8 million.

- Revenue growth is primarily from North American operations. The revenue increase was attributed to the 1993 realignment of its sales organization, adoption of a more flexible employment policy and enhancement of its electronic sourcing database.

- These actions improved CTG's ability to meet customer requirements and hire technical staff, as billable staff at the end of 1994 showed an increase of 19% over the 1993 year-end headcount.

- IBM continues to be CTG's largest client, accounting for nearly 23% of 1994 revenue.

CTG businesses divested during 1994 accounted for $17.1 million of 1994 revenue and $27.7 million of 1993.

Interim Results

Revenue for the six months ending June 30, 1995 reached $166.8 million, an 8% increase over $154.9 million for the same period in 1994. Net income was nearly $3.5 million, compared to $2.4 million for the same period a year ago.

- Revenue from ongoing operations increased $28 million or 20% over the comparable period in 1994. The majority of the increase

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is from North American operations and is primarily attributed to an increase in billable staff. The company's billable staff increased 21% from the first quarter of 1994 to the first quarter of 1995.

- European revenue for the first half of 1995 increased by $3.8 million or 30% over the comparable period for 1994.
- Revenue from IBM accounted for nearly 23% of total revenue for the first half of 1995.

Revenue Analysis by Product/Service

Approximately 70% of CTG's 1994 revenue was derived from professional software services (contract programming). The remainder of revenue was derived from consulting, managed support and implementation support services.

Approximately 92% of revenue was from time-and-materials contracts and 8% from fixed-price contracts.

Market Financials

CTG's customer base is large and diverse, including more than 1,800 clients. A typical customer is a Fortune 500-size organization with large, complex information and data processing requirements.

CTG's 1994 revenue was derived approximately as follows:

Manufacturing	30%
Services	25%
Banking and finance	8%
Wholesale/retail	5%
Other	32%
	100%

IBM accounted for $68 million (23%) of CTG's 1994 revenue, $80 million (27%) of CTG's 1993 revenue and $86 million (23%) of CTG's 1992 revenue.

Geographic Markets

Approximately 90% of CTG's 1994 revenue was derived from the U.S., 9% from Europe and 1% from Canada. A three-year source of revenue summary follows:

Computer Task Group, Inc.
Three-Year Geographic Source of Revenue Summary
($ Millions)

	Fiscal Year					
	1994		1993		1992	
Geographic Market	Revenue $	Percent of Total	Revenue $	Percent of Total	Revenue $	Percent of Total
U.S.	$271.3	90%	$263.2	89%	$268.2	89%
Europe	27.4	9%	29.3	10%	30.7	10%
Canada	2.9	1%	3.0	1%	3.7	1%
Total	$301.6	100%	$295.5	100%	$302.7	100%

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During 1994, IBM accounted for approximately 24% of North American revenue and 7% of European revenue.

Divestitures

During 1994, CTG divested three businesses that did not fit in with the long-term goals of the company.

- In July 1994, CTG sold its Profimatics, Inc. subsidiary, including the 67% interest which Profimatics held in its German subsidiary (Profimatics Europe, GmbH) to Honeywell, Inc. for $17 million. Profimatics offers applications software products for petrochemical plants and oil refining.

- In July 1994, CTG sold the hardware portion of its communications business (Network Systems Integration) to AmeriData, Inc. for $1.5 million.

- During 1994, CTG also sold its 16% interest in SerCon to IBM Germany. SerCon was a joint venture with IBM Germany to provide support to IBM's Distributors Management Accounting System.

Employees

As of December 31, 1994, CTG had 4,516 employees

As of August 25, 1995, CTG had 4,907 employees, segmented as follows

Marketing	100
Professional staff	
Salaried	2,769
Hourly	1,539
Resource managers	102
Management and administrative	397
	4,907

CTG's employee mix has changed significantly over the past three years.

- Hourly staff represented 19% of professional staff in 1994, compared to 11% in 1993 and 9% in 1992.

- The increase in hourly staff is a reflection of the increased need for variable work force solutions.

Key Products and Services

CTG currently provides its professional services in two interrelated areas—Professional Software Services and Information Technology Consulting.

Professional Software Services

CTG provides IT skills in response to clients' immediate or long-term needs. Once called flexible staffing or contract services, this is the business upon which CTG was founded.

In Professional Software Services, customers are looking for IT skills on a temporary basis and want a quick and accurate response.

The scope of professional services work performed by CTG ranges from specific, minor tasks of short duration to large, complex tasks that require multiple systems engineers for a long period of time. Fees are generally on a time-and-materials basis.

Information Technology Consulting

CTG's IT consulting provides IT solutions, assuming responsibility for defined deliverables or service levels and focused on three major offerings—Business Consulting, Development & Integration and Managed Support. Fees are generally on a time-and-materials basis.

Business Consulting—focuses on the planning phase of the IT life cycle. CTG consultants help a customer develop the plan to reengineer its business processes, assess its

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technology needs and choose the appropriate technology.

Development & Integration—supports the implementation phase of the IT life cycle, including software package implementation and client/server and other application development.

Managed Support—addresses the maintenance segment of the IT life cycle. It encompasses service offerings such as help desk (managing or staffing client help desks for systems or overall IT support), systems operations and network support (running or maintaining a customer's systems or IT function) and application maintenance outsourcing (maintaining a company's systems).

Customers are served by local teams, comprising Sales Managers, Business Consultants, Resource Managers and Project Managers who work together—the first two focus on identifying an engagement, the third focuses on finding appropriate, high quality professionals for an engagement and the fourth manages successful project completion.

- Supporting these local teams are regional recruiting (sourcing) specialists backed by a national electronic database of professional computer consultants and programmers to improve effectiveness at locating qualified IT candidates.

- Project Managers are responsible for profitability, client satisfaction and risk management in the project delivery of IT Consulting offerings.

CTG has special expertise in the following areas:

- Client/server
- Databases
- Imaging systems
- Vertical industries—health care, metals, logistics, distribution, pharmaceuticals
- Manufacturing systems

Clients

CTG clients include AT&T, Alyeska Pipeline, Eastman Kodak, First Union, GTE Corp., General Electric, IBM, MCI, Mercury Communications and Sprint Corporation.

Marketing and Sales

CTG markets its services through a direct sales staff.

Marketing efforts span all strata of the organization.

- On the corporate and regional level, management performs strategic, tactical and operational sales planning to assess industry and customer needs and target markets.

- On a local level, CTG markets Professional Software Services and IT Consulting Services through teams of professionals comprising Sales Managers, Resource Managers and Business Consultants. This team works together so when opportunities are identified, professional candidates can be quickly identified to fill the customer's needs.

Sales Managers and Resource Managers are full-time employees who receive a base salary and are paid commissions based on objectives such as revenues and profitability of the business they sell. Each Sales Manager is assigned a sales quota and is paid in relationship to this quota.

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Competition

CTG's competition comes primarily from four channels:

- Customers' internal data processing staff
- Small local firms or individuals specializing in specific programming services or applications
- Hardware vendors and suppliers of packaged software systems
- Large national or international vendors, including major accounting firms that offer a range of development services

Major competitors include Keane, Andersen Consulting, EDS, DEC, CSC, Computer Horizons and Analysts International.

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Vendor Profile

A Publication from INPUT's Vendor Analysis Program – U.S.

July 1995

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- In order to improve its response to client requirements, CTG reorganized its hiring processes. The company has a staff of more than 60 (sourcing) recruiting specialists located in five regional Sourcing Centers. During 1994, these centers started using an electronic recruiting database to screen and monitor staff who are available to work on CTG's client programming needs. In the first year the system was in place CTG created a qualified database of more than 100,000 candidates available for assignments. Today the system houses more than 150,000 resumes.
- In addition, the company's network of offices gives it wide geographic coverage with the capability of servicing large companies with multiple locations.

It is the company's goal to increase annual revenue by 10% in 1995 as compared to 1994 revenue from ongoing operations.

Organization and Structure

Since 1993, CTG has redefined its regional structure, redrawing territorial boundaries and consolidating support functions such as sourcing, finance and administration to help delivery teams capture greater market share and bring decision-making closer to the client.

CTG's services are offered through a network of nearly 100 geographically dispersed delivery teams.

CTG's Professional Software Services has six regions with offices as follows:

- *Northeast* Region—headquartered in Syracuse (NY) with offices in Albany, Boston, Buffalo, Hartford Hudson Valley, New York City/New Jersey, Rochester and Toronto.

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- *Mid-Atlantic Region*—headquartered in Raleigh (NC) with offices in Baltimore, Charlotte, Delaware Valley, Greenville, Central Pennsylvania, Pittsburgh, Richmond, Washington D.C. and Winston-Salem.
- *South Region*—headquartered in Atlanta (GA) with offices in Birmingham, Ft. Lauderdale, Jacksonville, Memphis, Nashville, Orlando and Tampa.
- *Midwest Region*—headquartered in Merrillville (IN) with offices in Chicago, Cincinnati, Cleveland, Columbus, Detroit, Ft. Wayne, Grand Rapids, Indianapolis and Milwaukee.
- *Central Region*—headquartered in Dallas (TX), with offices in Austin, Denver, Des Moines, Houston, Kansas City and St. Louis.
- *Western Region*—headquartered in Dallas (TX) with offices in Anchorage, Phoenix, Portland, Salt Lake City, San Francisco, San Jose and Seattle.

CTG's Information Technology Consulting practices have offices as follows:

- Business Consulting—Melbourne (FL)
- Development and Integration—Buffalo (NY)
- Managed Support—Atlanta (GA)

Outside the U.S., CTG has four operating subsidiaries:

- Computer Task Group of Canada, Inc., based in Toronto
- Computer Task Group (U.K.) Ltd., with offices in Nottingham and Reading (England)
- Computer Task Group Nederland B.V.
- Computer Task Group Belgium N.V.

Financials

CTG's 1994 total revenue reached $301.6 million, a 2% increase over 1993 revenue of $295.5 million. Net income was $4.8 million, compared to a net loss of $27.7 million for 1993.

- During 1994, CTG recognized pretax gains of $10.6 million in the third quarter from the sale of its petroleum industry subsidiary—Profimatics, Inc.—and from the sale of its Network Systems Integration hardware support business.
- Results for 1993 include $12.8 million in restructuring expenses and $21.3 million in impairment losses related to its extensive reengineering efforts.
- A five-year financial summary appears on the following page:

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Computer Task Group, Inc.
Five-Year Financial Summary
($ Millions, except per share data)

Item	Fiscal Year				
	1994	1993	1992	1991	1990
Revenue	$301.6	$295.5	$302.7	$285.1	$243.9
• Percent change from previous year	2%	(2%)	6%	17%	5%
Income (loss) before taxes	$8.1	$(30.7)	$10.1	$1.6	$12.6
• Percent change from previous year	(a) 126%	(b) (404%	531%	(87%)	*
Net income (loss)	$4.8	$(27.7)	$5.6	$0.9	$7.2
• Percent change from previous year	117%	(595%)	529%	(88%)	*
Earnings (loss) per share	$0.52	$(2.62)	$0.56	$0.10	$0.77
• Percent change from previous year	120%	(568%)	460%	(87%)	*

* *Not meaningful*

(a) Includes an $11.3 million gain from the sale of various assets.

(b) Includes $12.8 million in restructuring costs and $21.3 million in impairment costs.

CTG's revenue from continuing operations was $284.4 million, a 6% increase over 1993's comparable revenue of $267.8 million.

- Revenue growth is primarily from North American operations. The revenue increase was attributed to the 1993 realignment of its sales organization, adoption of a more flexible employment policy and enhancement of its electronic sourcing database.
- These actions improved CTG's ability to meet customer requirements and hire technical staff, as billable staff at the end of 1994 showed an increase of 19% over the 1993 year-end headcount.
- IBM continues to be CTG's largest client, accounting for nearly 23% of 1994 revenue.

CTG businesses divested during 1994 accounted for $17.1 million of 1994 revenue and $27.7 million of 1993.

Interim Results

Revenue for the three months ending March 31, 1995 reached $82.2 million, a 7% increase over $77.0 million for the same period in 1994. Net income was nearly $1.6 million, compared to $1.2 million for the same period a year ago.

- Revenue from ongoing operations increased $12.8 million or 18% over the comparable period in 1994. The majority of the increase is from North American operations and is primarily attributed to an increase in billable staff. The company's billable staff increased 21% from the first quarter of 1994 to the first quarter of 1995.
- European revenue increased by $1.9 million or 30%.

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- Revenue from IBM accounted for more than 24% of first quarter 1995 revenue.

Revenue Analysis by Product/Service

More than 80% of CTG's 1994 revenues were derived from professional software services (contract programming). The remainder of revenue was derived from consulting, managed support and implementation support services.

Approximately 92% of revenue was from time-and-materials contracts and 8% from fixed-price contracts.

Market Financials

CTG's customer base is large and diverse, including more than 1,800 clients. A typical customer is a Fortune 500-size organization with large, complex information and data processing requirements.

CTG's 1994 revenue was derived approximately as follows:

Manufacturing	30%
Services	25%
Banking and finance	8%
Wholesale/retail	5%
Other	32%
	100%

IBM accounted for $68 million (23%) of CTG's 1994 revenue, $80 million (27%) of CTG's 1993 revenue and $86 million (23%) of CTG's 1992 revenue.

Geographic Markets

Approximately 90% of CTG's 1994 revenue was derived from the U.S., 9% from Europe and 1% from Canada.

- During 1994, IBM accounted for approximately 24% of North American revenue and 7% of European revenue.
- A three-year source of revenue summary follows:

Computer Task Group, Inc.
Three-Year Geographic Source of Revenue Summary
($ Millions)

	Fiscal Year					
	1994		1993		1992	
Geographic Market	Revenue $	Percent of Total	Revenue $	Percent of Total	Revenue $	Percent of Total
U.S.	$271.3	90%	$263.2	89%	$268.2	89%
Europe	27.4	9%	29.3	10%	30.7	10%
Canada	2.9	1%	3.0	1%	3.7	1%
Total	$301.6	100%	$295.5	100%	$302.7	100%

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Divestitures

During 1994, CTG divested three businesses that did not fit in with the long-term goals of the company.

- In July 1994, CTG sold its Profimatics, Inc. subsidiary, including the 67% interest which Profimatics held in its German subsidiary (Profimatics Europe, GmbH) to Honeywell, Inc. for $17 million. Profimatics offered applications software products for petrochemical plants and oil refining.

- In July 1994, CTG sold the hardware portion of its communications business (Network Systems Integration) to AmeriData, Inc. for $1.5 million.

- During 1994, CTG also sold its 16% interest in SerCon to IBM Germany. SerCon was a joint venture with IBM Germany to provide support to IBM's Distributors Management Accounting System.

Employees

As of December 31, 1994, CTG had 4,516 employees, segmented as follows

Marketing	149
Professional staff	
Salaried	2,653
Hourly	1,244
Resource managers	93
Management and administrative	377
	4,516

CTG's employee mix has changed significantly over the past three years

- Hourly staff represented 68% of professional staff in 1994, compared to 19% in 1993 and 11% in 1992.

- The increase in hourly staff is a reflection of the increased need for variable work force solutions.

The company currently has more than 4,600 employees.

Key Products and Services

CTG currently provides its professional services in two interrelated areas—Professional Software Services and Information Technology Consulting.

Professional Software Services

CTG provides IT skills in response to clients' immediate or long-term needs. Once called flexible staffing or contract services, this is the business upon which CTG was founded.

In Professional Software Services, customers are looking for IT skills on a temporary basis and want a quick and accurate response.

The scope of professional services work performed by CTG ranges from specific, minor tasks of short duration to large, complex tasks that require multiple systems engineers for a long period of time. Fees are generally on a time-and-materials basis.

Information Technology Consulting

CTG's IT consulting provides IT solutions, assuming responsibility for defined deliverables or service levels and focused on three major offerings—Business Consulting, Development & Integration and Managed Support. Fees are generally on a time-and-materials basis.

Business Consulting—focuses on the planning phase of the IT life cycle. CTG consultants help a customer develop the plan to reengineer its business processes, assess its technology needs and choose the appropriate technology.

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Development & Integration—supports the implementation phase of the IT life cycle, including software package implementation and application development.

Managed Support—addresses the maintenance segment of the IT life cycle. It encompasses service offerings such as operations and network support (running or maintaining a customer's systems) and application support (maintaining a company's programs and documentation).

Customers are served by local teams, comprising Sales Managers, Resource Managers, Business Consultants and Project Managers who work together—the first two focused on identifying an engagement and the latter focused on finding appropriate, high quality professionals of an engagement.

- Supporting these local teams are regional recruiting specialists backed by a national electronic database of professional computer consultants and programmers to improve effectiveness at locating qualified IT candidates.

- Project Managers are responsible for profitability, client satisfaction and risk management in the project delivery of IT Consulting offerings.

CTG has expertise in the following areas:

- Client/server
- Database consulting
- Healthcare
- Imaging systems
- SAP support

Clients

CTG clients have included Mobil Oil Corporation, Dunlop Tire Corporation, British Petroleum Exploration (Alaska) Inc., Armstrong World Industries, IBM Southwest Federal Credit Union, Monsanto Corporation, KeyCorp and Baxter Healthcare, SA (Malaysian Operations).

Marketing and Sales

CTG markets its services through a direct sales staff.

Marketing efforts span all strata of the organization.

- On the corporate and regional level, management performs strategic, tactical and operational sales planning to assess industry and customer needs and target markets.

- On a local level, CTG markets Professional Software Services and IT Consulting Services through teams of professionals comprising Sales Managers, Resource Managers and Business Consultants. This team works together so when opportunities are identified, professional candidates can be quickly identified to fill the customer's needs.

Sales Managers and Resource Managers are full-time employees who receive a base salary and are paid commissions based on objectives such as revenues and profitability of the business they sell. Each Sales Manager is assigned a sales quota and is paid in relationship to this quota.

Competition

CTG's competition comes primarily from four channels:

- Customers' internal data processing staff

- Small local firms or individuals specializing in specific programming services or applications

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- Hardware vendors and suppliers of packaged software systems
- Large national or international vendors, including major accounting firms that offer a range of development services

Major competitors include Keane, Andersen Consulting, EDS, DEC, CSC, Computer Horizons and Analysts International.

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COMPUTER TASK GROUP, INC.

800 Delaware Avenue
Buffalo, NY 14209
Phone: (716) 882-8000
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Chairman & CEO:	David N. Campbell
President & COO:	Gale S. Fitzgerald
Status:	Public Corporation
Stock Exchanges:	NYSE, Amsterdam
Total Employees:	4,132 (12/92)
Total Revenue:	$302,677,000
Fiscal Year End:	12/31/92

Key Points

- Computer Task Group (CTG) continues its thrust toward value-added services and expertise in its customers' areas of business.
- The company continues to focus on industries where it has proven capabilities--discrete manufacturing, process manufacturing, banking and finance, insurance, and state and local government.
- CTG entered the Mexican marketplace during 1992 with a project for manufacturer Casa Pedro Domecq.
- Effective July 1, 1993, CTG's president and chief operating officer, John P. Courtney, retired and Gale S. Fitzgerald, CTG's former senior vice president of its Northeast Region, was appointed as the replacement.

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Company Description

CTG, founded in 1966, is one of the largest providers of computer-related consulting, systems integration, and professional services to the commercial market in the U.S.

Services available through CTG include consulting, systems analysis and design, programming, software conversions, education and training, systems operations, information engineering, imaging technology, networking systems integration, client/server, industrial systems integration, documentation, data base support, outsourcing, SAP support, application support, software package consulting, services management, and systems management consulting.

In May 1989, IBM made an equity investment in CTG, acquiring approximately 1.5 million shares of CTG preferred stock for $21 million.

- In conjunction with this transaction, the two companies agreed to levels of use of CTG's systems engineers on products for IBM and its customers.
- Revenues from IBM, which were about 5% of total revenue prior to this contract, reached $86 million (28% of revenue) in 1992, compared to $72 million (25% of revenue) in 1991, and $42 million (17% of revenue) in 1990.

CTG's stock is listed on the New York Stock Exchange and the Amsterdam Stock Exchange.

Strategy

CTG's mission is to excel in service to its customers through the application of information technology. The company has developed a strategic plan for the 1990s that includes the following:

- Continuing to focus sales and marketing efforts on industries where it has proven capabilities. These include discrete manufacturing, process manufacturing, banking and finance, insurance, and state and local government.
- Capitalizing on the strength of its branch network and skills of the professional staff
- Expanding alliances, particularly in the international arena
- Focusing on European operations, with a goal that they grow, at a minimum, at a level equal to the growth rate of the European marketplace

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- Continued focus on education for CTG consultants and engineers, as well as employee retention and recruiting of professionals with special skills

CTG also will intensify its industry-specific activities by restructuring business units, from a marketing and consulting standpoint, to present its expertise in such industries as pharmaceuticals, insurance, health care, metals, and petroleum.

Financials

CTG's 1992 revenue reached $302.7 million, a 6% increase over 1991 revenue of $285.1 million. Net income reached $5.6 million, a 529% increase over $890,000 for 1991. A five-year financial summary follows:

COMPUTER TASK GROUP, INC.
FIVE-YEAR FINANCIAL SUMMARY
($ millions, except per share data)

	FISCAL YEAR				
ITEM	1992	1991	1990	1989	1988
Revenue	$302.7	$285.1	$243.9	$233.0	$218.7
· Percent increase from previous year	6%	17%	5%	7%	29%
Income (loss) before taxes	$10.1	$1.6	$12.6	$(11.6) (a)	$10.8
· Percent increase (decrease) from previous year	531%	(87%)	*	*	28%
· Gross margin	3%	5%	--	5%	
Net income (loss)	$5.6	$0.9	$7.2	$(7.8)	$6.4
· Percent increase (decrease) from previous year	529%	(88%)	*	*	26%
· Net margin	2%	--	3%	--	3%
Earnings (loss) per share	$0.56	$0.10	$0.77	$(0.88)	$0.80
· Percent increase (decrease) from previous year	460%	(87%)	*	*	21%

* *Not meaningful.*

(a) Includes losses from closed businesses of $4.2 million and restructuring expenses of $13.2 million.

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The Professional Services--Domestic segment accounted for an $18.2 million improvement in revenue during 1992.

- Within this segment, the Northeast, Southeast, and West regions showed the biggest revenue increases--$4.0 million (9.7%), $4.5 million (6.4%), and $7.2 million (15%), respectively.

- The increases resulted from several factors, including additional revenue from IBM in the areas of Help Desk and systems operations, and growth from new business units opened in 1991.

- The Communications Systems group, specializing in voice and data connectivity, grew by $3.6 million (31.9%) to $14.9 million in revenue. Two-thirds of this increase ($2.4 million came from product sales (hardware and software for LANs), which totaled $7.3 million in 1992.

- Operating income in 1992 rose nearly 55% ($7.8 million), with most of this increase coming from the Northeast and West regions, reflecting the increased revenue discussed above.

In the Systems Integration segment, total revenue was stable in 1992 although the source of revenue changed. Revenue from the Manufacturing and Distribution group was down $2.3 million (10.2%), while revenue from the Petroleum group increased $2.3 million (31%).

- The manufacturing revenue decrease is attributed to a temporary shortfall in backlog. Several major projects completed at the beginning of the year were not replaced until year end.

- The petroleum revenue increase was due primarily to one project in which CTG is developing a refinery information system for one of the world's largest petroleum firms. CTG is installing this system in three European refineries. This project extends through the end of 1993.

- Operating income increased by $2.0 million (441%) as a result of cost control on project and administrative expenses.

Professional Services--International segment revenue decreased $0.6 million (2%) during 1992. This segment did not grow according to CTG's expectations because of a continuing weak economy in Europe.

- This adversely impacted demand for the company's services and resulted in high staff availability during the year in Belgium and the U.K. Also, sales from software declined because CTG divested a part of this business in late 1991.

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- This segment, which was profitable in 1991, reported a $1.7 million operating loss for 1992 due to the high staff availability described above. The loss also reflects one-time severance costs relating to the realignment of several management positions.

- CTG expects to break even in Europe in 1993 and to begin to generate profits in 1994 and beyond.

Revenue for the three months ending March 31, 1993 reached $77.9 million, a 3% increase over $75.5 million for the same period a year ago. Net income reached $1.0 million, compared to nearly $1.7 million for the same period in 1992.

Acquisitions

CTG has pursued expansion by opening and/or acquiring field offices to attract and support clients. Between 1979 and 1990, CTG acquired 21 firms ranging in size from $1 million to approximately $30 million in revenue.

CTG's most recent acquisitions occurred in 1990. CTG made two acquisitions (for $24 million plus contingent payments based on future performance) as follows:

- In October 1990, CTG acquired Rendeck International N.V. of Amsterdam, a European provider of professional services primarily to large mainframe users in manufacturing, financial services, and banking.

  - The acquisition expanded CTG's business to include opportunities outside the U.S. Rendeck has large operations in the Netherlands, the U.K., and Belgium.

  - Rendeck, with approximately 400 employees at the time of the acquisition and 1989 revenue of $30 million, has been renamed Computer Task Group Europe B.V., as of February 1991.

- In September 1990, CTG acquired Connolly Data Systems, Inc. of Lowell (MA), expanding CTG's capabilities in the communications area.

  - Connolly had approximately 45 employees at the time of the acquisition and 1989 revenue of about $7 million.

  - The operations of Connolly have been merged into CTG's consulting segment.

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Alliances

CTG has built strategic alliances and partnerships with many industry leaders, including the following:

- A.T. Kearney, specializing in information systems strategy
- Computer Resources and Technology, Inc., in support of software conversion services
- IBM, with CTG as a preferred supplier
- KnowledgeWare, for CASE tools and development support
- Lotus Development Corporation, for implementation, consulting, and training for Lotus Notes
- Novell, in support of integration of workgroup local-area networks. CTG is a member of Novell's Alliance Partners Program and Professional Developers Program.
- Powersoft, with an alliance to support mutual customers in application development (using PowerBuilder), training (CTG is certified as a Private Instructor in PowerBuilder), and mainframe-to-client/server migrations
- SAP, with CTG as a business partner for implementation of SAP's R/2 System in North America and CTG providing evaluation, implementation and project management support for SAP's R/3 system, the client/server version of R/2
- Texas Instruments, with CTG providing support for TI's Information Engineering Facility (IEF) CASE tool
- Xerox Computer Services, with CTG as the sole Xerox Alliance Consultant Organization for Xerox's Chess family of enterprise-wide open systems for manufacturing companies.

Employees

As of December 31, 1992, CTG had 4,132 employees, segmented as follows:

Marketing/sales	128
Professional staff	3,457
Field management and administration	433
Corporate	114
	4,132

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CTG currently has 3,989 employees throughout 67 offices in the U.S. and six foreign countries.

Competitors

CTG professional services competitors include AGS Computers, Inc. (NYNEX), Computer Horizons, Keane, and the major accounting firms. Systems integration competitors include Andersen Consulting, Electronic Data Systems, DEC, Computer Sciences Corporation, and Analysts International.

Key Products and Services

Approximately 89% of CTG's 1992 revenue was derived from its various professional services and 11% from commercial systems integration activities. A three-year source of revenue summary follows:

COMPUTER TASK GROUP, INC.
THREE-YEAR SOURCE OF REVENUE SUMMARY
($ millions)

	FISCAL YEAR					
	1992		1991		1990	
ITEM	REVENUE $	PERCENT OF TOTAL	REVENUE $	PERCENT OF TOTAL	REVENUE $	PERCENT OF TOTAL
Professional services - domestic	$240.0	79%	$221.7	78%	$207.9	85%
Professional services - international	30.3	10%	30.9	11%	11.6	5%
Systems integration	32.4	11%	32.4	11%	24.3	10%
TOTAL	**$302.7**	**100%**	**$285.0**	**100%**	**$243.8**	**100%**

The scope of professional services work performed by CTG ranges from specific, minor tasks of short duration to large, complex tasks that require multiple systems engineers for a long period of time. CTG offers consultants who are experienced in an industry application or technology, total project systems integration (often on a fixed-fee basis), and per diem services.

- Typically, CTG's professional staff augments and becomes part of the client's on-site software development team on a specific application or project.

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- A majority of CTG's clients are large companies with multiple locations and substantial data processing operations. CTG currently has approximately 1,400 clients worldwide, including over 70% of the Fortune 100 companies.

CTG focuses its services primarily in the professional services areas of software development and consulting, and systems integration.

Commercial Professional Services (Domestic and International):

This segment is organized along two service lines--General Professional Services and Cross-Industry and Industry-Specific Practices.

General Professional Services encompass contract programming, total project responsibility, advisory and consulting services. Through its network of branches and field offices, CTG provides computer professionals on a contract basis to assist its clients. Usually these services are provided on a time-and-materials basis. CTG's broad geographic coverage (69 offices in seven countries) allows CTG to support multinational clients.

The Practices and specialty services groups provide consulting services in emerging information technologies. The mission of the Practices and specialty services groups is to support the branch network in pursuing higher level consulting business as customers use technology to solve their business needs. In addition to serving customers, Practice and specialty services managers also share their expertise with others in the company.

CTG's Practices include the following:

- Application Support Practice:
  - Application Support--CTG assumes complete responsibility for managing the outsourced development and maintenance of its customers' applications. Customers turn to CTG to manage these engagements to reduce costs, and concentrate on their core business and movement from legacy systems to new technologies.
  - Services Management--CTG's managers take full responsibility for a customer's project, assessing requirements, managing the project from start to finish, and monitoring quality. Most importantly, CTG shares the financial and technical risks with the customer.
  - Systems Management Consulting--CTG supports the audit, relocation, re-engineering, and recovery of information processing environments. CTG also provides systems programming services.

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- Client/Server Practice:
  - Communications Systems--CTG focuses on voice and data communications, with expertise in both local- and wide-area networks, connections to mainframes, electronic interchanges of data between corporations, and electronic mail. CTG services in these areas include system analysis, system upgrades, implementation of new systems, and support for multisite and multivendor integration.
  - Data Base Consulting--CTG specializes in data base consulting with a focus on IBM's DB2 relational data base management system. CTG services range from flexible staffing through full project management.
- Information Engineering Practice works with clients to better understand their corporate objectives, to identify and define problems, and to develop a total solutions approach for solving them. Examples of services CTG provides in this area include critical success factor analysis, information strategy plan development, architecture assessment and refinement, and joint application design.

CTG's specialty services include the following:

- The Healthcare group focuses on the specialized business needs of the health care industry.
- Image Systems Services provides project management, consulting, requirements definition, design, implementation, and education in the area of imaging systems. These services are most beneficial to paper-intensive businesses, particularly banking, financial services, health care, insurance, and government.
- Information Media produces quality information to support software and hardware systems, training programs, and policies and procedures.
  - Services include documentation analysis, text and graphic conversion services, CD ROM, and computer-based training.
  - Within this group, the multimedia experts can produce interactive videos and animation using computer graphics.
  - Projects have included creating on-line documentation for procedures and written product release documentation; developing courses for products or technology using state-of-the-art tools; and creating animation for use in advertisements.

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- The group can also provide documentation that is in compliance with the U.S. government's computer-aided acquisitions and logistics support (CALS).

- Migration Services helps large organizations move data and applications from one computer language or environment to another cost effectively, with a methodology for quality and in alignment with business objectives.

- Outsourcing provides data center support to clients by providing the personnel to staff the operation on their behalf.

  - CTG's largest contract to date involves systems operations for the Atlanta-based Bank South data center. Teaming with IBM, CTG is running the data center's operations under a 10-year contract. CTG and IBM have since signed systems operations contracts with Celanese Corporation and Riggs Bank.

- The Package Consulting group provides software consulting services, including package assessments and recommendations.

- CTG's SAP Support Center fills the needs of companies working with SAP's R/2 and R/3 software packages used to control costs.

- The Application Portfolio Support Services (AP/SS) group helps companies manage their application support function to reduce costs, increase productivity, and extend the life of existing applications.

Recent contracts include the following:

- For Mobile Europe Ltd., CTG is developing a refinery information system for three refineries. The development team consists of staff from CTG's oil and gas consulting group in California and communications consultants from the U.S. and Europe.

- CTG has signed significant outsourcing contracts with British Petroleum Exploration (Alaska) to manage applications support and Help Desk functions.

- CTG recently entered the Mexican marketplace with a project for Casa Pedro Domecq, a manufacturing subsidiary of a 200 year-old company. CTG is helping Domecq redesign its business processes and implement CTG's SAP software package.

- Readers Digest contracted with CTG in the U.K. to migrate data centers located in five European countries into one site located

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outside of London using a combination of CTG U.S. and European consulting groups.

- Other recent clients include Society Corporation, United Airlines, Dunlop, and Monsanto.

Systems Integration Services:

CTG Industrial Systems Integration (ISI), headquartered in Melbourne (FL) with over 200 employees, provides systems integration services in the manufacturing and industrial markets.

- ISI has four industry-specific specialties--Metals, General Manufacturing & Pharmaceuticals, Petroleum, and Logistics.

- ISI has performed projects for North Star Steel Co. (an automated process control system), Public Service of New Mexico (a coal-fed generating plant monitoring system), Baxter Healthcare Corporation (a warehouse control system), and National Steel Corporation (a caster control system).

Profimatics, an ISI subsidiary located in Thousand Oaks (CA) with 40 employees, provides IBM and DEC VAX-based applications software products for petrochemical plants and oil refining. Refinery information and production systems support refinery modeling, process simulation, and blending and oil movements automation and are designed to increase the customer's plant yields and reduce energy consumption.

The CTG Institute for Technical and Management Training in Buffalo provides in-depth training for CTG staff. Some 25 technical and 20 marketing and management courses are offered. Over 1,500 employees attend these classes on an annual basis. Formal training courses are also offered at selected national branch offices.

Industry Markets

CTG's target markets include large organizations in discrete and process manufacturing, financial services, insurance, and state and local government.

More than 70 of the Fortune 100 are CTG customers.

CTG's client base is segmented approximately as follows:

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Discrete manufacturing	32%
Process manufacturing	23%
Services	16%
Banking and finance	9%
Insurance	5%
Distribution	5%
State and local government	3%
Other	7%
	100%

Geographic Markets

Approximately 89% of CTG's 1992 revenue was derived from the U.S., 10% from Europe, and 1% from Canada. A three-year source of revenue summary follows:

COMPUTER TASK GROUP, INC.
THREE-YEAR SOURCE OF REVENUE SUMMARY
($ millions)

	FISCAL YEAR					
	1992		1991		1990	
ITEM	REVENUE $	PERCENT OF TOTAL	REVENUE $	PERCENT OF TOTAL	REVENUE $	PERCENT OF TOTAL
U.S.	$268.2	89%	$248.0	87%	$227.1	93%
Europe	30.7	10%	32.7	11%	12.9	5%
Canada	3.7	1%	4.4	2%	3.9	2%
TOTAL	**$302.7**	**100%**	**$285.1**	**100%**	**$243.9**	**100%**

CTG has 67 offices in the U.S., Belgium, Canada, the U.K., Germany, the Netherlands, and Mexico.

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COMPUTER TASK GROUP, INC.

800 Delaware Avenue
Buffalo, NY 14209
Phone: (716) 882-8000

Chairman & CEO:	David N. Campbell
President & COO:	John P. Courtney
Status:	Public Corporation
Stock Exchanges:	NYSE, Amsterdam
Total Employees:	4,143 (12/91)
Total Revenue:	$285,053,000
Fiscal Year End:	12/31/91

Key Points

Computer Task Group's mission is to excel in service to its customers through the application of information technology. The company has developed a strategic plan for the 1990s that includes the following:

- Continuing to focus sales and marketing efforts on industries where it has proven capabilities. These include discrete manufacturing, process manufacturing, banking and finance, insurance, and state and local government.
- Capitalizing on the strength of its branch network and skills of the professional staff
- Expanding alliances, particularly in the international arena
- Focusing on European operations, with a goal that they grow, at a minimum, at a level equal to the growth rate of the European marketplace
- Continued focus on education for CTG consultants and engineers, as well as employee retention and recruiting of professionals with special skills

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Company Description

Computer Task Group, Inc. (CTG), founded in 1966, is one of the largest providers of computer-related consulting, systems integration, and professional services to the commercial market in the U.S. Services available through CTG include consulting, systems analysis and design, programming, software conversions, education and training, systems operations, information engineering, imaging technology, networking systems integration, industrial systems integration, documentation, data base support, outsourcing (systems operations), SAP support, application portfolio support, health care, and software package consulting.

In May 1989, IBM made an equity investment in CTG, acquiring approximately 1.5 million shares of CTG preferred stock for $21 million.

- In conjunction with this transaction, the two companies agreed to levels of use of CTG's systems engineers on products for IBM and its customers.

- Revenues from IBM, which were about 5% of total revenue prior to this contract, reached $72 million (25% of total revenue) in 1991, compared to $42 million (17% of revenue) in 1990.

CTG's stock is listed on the New York Stock Exchange and, effective February 1991, on the Amsterdam Stock Exchange.

Acquisitions

CTG has pursued expansion by opening and/or acquiring field offices to attract and support clients. In the past five years, CTG has acquired ten firms ranging in size from $1 million to approximately $30 million in revenue. During 1990, CTG made two acquisitions (for $24 million plus contingent payments based on future performance) as follows:

- In October 1990, CTG acquired Rendeck International N.V. of Amsterdam, a European provider of professional services primarily to large mainframe users in manufacturing, financial services, and banking.

  - The acquisition expands CTG's business to include opportunities outside the U.S. Rendeck has large operations in the Netherlands, the U.K., Belgium, and Denmark.

  - Rendeck had approximately 400 employees at the time of the acquisition and 1989 revenue of $30 million.

  - Rendeck has been renamed Computer Task Group Europe B.V., as of February 1991.

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- In September 1990, CTG acquired Connolly Data Systems, Inc. of Lowell (MA).
  - Connolly provides integrated PC local-area network systems in the northeastern U.S.
  - Connolly had approximately 45 employees at the time of the acquisition and 1989 revenue of about $7 million.
  - The operations of Connolly have been merged into CTG's consulting segment.

Financials

CTG's 1991 revenue reached $285.1 million, a 17% increase over 1990 revenue of $243.9 million. Net income declined 88%, from $7.2 million in 1990 to $890,000 in 1991. A five-year financial summary follows:

COMPUTER TASK GROUP, INC.
FIVE-YEAR FINANCIAL SUMMARY
($ millions, except per share data)

	FISCAL YEAR				
ITEM	1991	1990	1989	1988	1987
Revenue	$285.1	$243.9	$233.0	$218.7	$170.1
· Percent increase from previous year	17%	5%	7%	29%	19%
Income (loss) before taxes	$1.6	$12.6	$(11.6) (a)	$10.8	$8.5
· Percent increase (decrease) from previous year	(87%)	*	*	28%	(8%)
· Gross margin	1%	5%	--	5%	5%
Net income (loss)	$0.9	$7.2	$(7.8)	$6.4	$5.1
· Percent increase (decrease) from previous year	(88%)	*	*	26%	--
· Net margin	--	3%	--	3%	3%
Earnings (loss) per share	$0.10	$0.77	$(0.88)	$0.80	$0.66
· Percent increase (decrease) from previous year	(87%)	*	*	21%	(3%)

* *Not meaningful.*

(a) *Includes losses from closed businesses of $4.2 million and restructuring expenses of $13.2 million.*

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Each of the company's segments showed increases in revenue during 1991 due to the acquisitions made in 1990 plus a 7% growth in existing businesses.

- The Professional Services--Domestic segment was aided by the acquisition of Connolly Data Systems as well as growth in the systems operations area. CTG also generated additional revenues from IBM in the areas of help desk support and imaging technologies.

- In the Systems Integration segment, revenue increased as the company's Industrial Systems Integration group completed work on existing contracts, and its Profimatics subsidiary (which specializes in oil and gas production systems) continued its strong performance.

- Revenue in the Professional Services--International segment increased due to the acquisition of Rendeck in 1990.

Operating income for 1991 was adversely affected by the state of the economy.

- The company's major clients suffered reduced profits, delaying or cancelling decisions to buy services, leading to a lower CTG staff utilization than anticipated. Also, due to competitive pressures, the company was not able to pass on all of its cost increases in the form of higher rates, thus contributing to a reduction in profits.

- Operating costs increased from nearly 87% of revenue ($211.3 million) in 1990 to 89% of revenue ($256.3 million) in 1991, reflecting the pressure on margins.

- CTG also invested several million dollars in 1991 in new activities, particularly in the areas of imaging and networking.

- In the fourth quarter of 1991, CTG reduced staff and consolidated branches, resulting in a $3.4 million charge against earnings for the year.

- While profitable, the company's European operations were below expectations and operating income was not sufficient to cover the cost of interest and goodwill amortization.

Revenue for the six months ending June 30, 1992 reached $151.8 million, a 7% increase over $141.4 million for the same period in 1991. Net income reached $3.4 million, compared to $2.4 million for the same period a year ago.

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Employees

As of December 31, 1991, CTG had 4,143 employees, segmented as follows:

Marketing/sales	139
Professional staff	3,456
Field management and administration	435
Corporate	113
	4,143

CTG currently has 4,143 employees throughout 67 offices in the U.S. and six foreign countries.

Competitors

CTG professional services competitors include AGS Computers, Inc. (NYNEX), Computer Horizons, Keane, and the major accounting firms. Systems integration competitors include Andersen Consulting, Electronic Data Systems, DEC, Computer Sciences Corporation, and Analysts International.

Key Products and Services

Approximately 89% of CTG's 1991 revenue was derived from its various professional services and 11% from commercial systems integration activities. A three-year source of revenue summary follows:

COMPUTER TASK GROUP, INC.
THREE-YEAR SOURCE OF REVENUE SUMMARY
($ millions)

	FISCAL YEAR					
	1991		1990		1989	
ITEM	REVENUE $	PERCENT OF TOTAL	REVENUE $	PERCENT OF TOTAL	REVENUE $	PERCENT OF TOTAL
Professional services - domestic	$221.7	78%	$207.9	85%	$210.5	90%
Professional services - international	30.9	11%	11.6	5%	4.6	2%
Systems integration	32.4	11%	24.3	10%	17.9	8%
TOTAL	**$285.0**	**100%**	**$243.8**	**100%**	**$233.0**	**100%**

The scope of professional services work performed by CTG ranges from specific, minor tasks of short duration to large, complex tasks that

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require multiple systems engineers for a long period of time. CTG offers consultants who are experienced in an industry application or technology, total project systems integration (often on a fixed-fee basis), and per diem services.

- Typically, CTG's professional staff augments and becomes part of the client's on-site software development team on a specific application or project.

- A majority of CTG's clients are large companies with multiple locations and substantial data processing operations. CTG currently has approximately 1,400 clients worldwide, including over 70% of the Fortune 100 companies.

CTG focuses its services primarily in the professional services areas of software development and consulting, and systems integration.

Commercial Professional Services (Domestic and International):

Through its network of branches and field offices, CTG provides computer professionals on a contract basis to assist its clients. Usually these services are provided on a time-and-materials basis. CTG's broad geographic coverage (67 offices in seven countries) allows CTG to support multinational clients.

CTG is organized into several practices and specialty businesses in support of its professional services activities. These groups (previously called specialty services groups) provide consulting in emerging technologies. Their mission is to support the branch network in pursuing higher value-added business as customers move in the direction of rightsizing or computer optimization.

CTG's practice groups include the following:

- Migration Services Practice helps large organizations move data and applications from one computer language or environment to another cost effectively, with a methodology for quality and in alignment with business objectives.

- Services Management Practice focuses on project management services using CTG's proprietary management methodology, called EM/Power.

- Communications Systems Practice focuses on voice and data communications, with expertise in both local- and wide-area networks, connections to mainframes, electronic interchanges of data between corporations, and electronic mail. CTG services in these areas include system analysis, system upgrades,

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implementation of new systems, and support for multisite and multivendor integration.

- Information Engineering Practice works with clients to better understand their corporate objectives, to identify and define problems, and to develop a total solutions approach for solving them. Examples of services CTG provides in this area include critical success factor analysis, information strategy plan development, architecture assessment and refinement, and joint application design.

- Database Consulting Practice specializes in data base consulting and has established a corporate-level practice to focus on IBM's DB2 relational data base management system. CTG services range from flexible staffing through full project management.

- Information Media Practice produces quality information to support software and hardware systems, training programs, and policies and procedures.

  - Services include documentation analysis, text and graphic conversion services, CD ROM, and computer-based training.

  - Within this practice, the multimedia group can produce interactive videos and animation using computer graphics.

  - Projects have included creating on-line documentation for procedures and written product release documentation; developing courses for products or technology using state-of-the-art tools; and creating animation for use in advertisements.

  - The group can also provide documentation that is in compliance with the U.S. government's computer-aided acquisitions and logistics support (CALS).

- Image Systems Services Practice provides project management, consulting, requirements definition, design, implementation, and education in the area of imaging systems. These services are most beneficial to paper-intensive businesses, particularly banking, financial services, health care, insurance, and government.

CTG's specialty businesses include the following:

- CTG's Outsourcing Group provides data center support to clients by providing the personnel to staff the operation on their behalf.

  - CTG's largest contract to date involves systems operations for the Atlanta-based Bank South data center. Teaming with IBM, CTG

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is running the data center's operations under a 10-year contract. CTG and IBM have since signed systems operations contracts with Celanese Corporation and Riggs Bank.

- CTG's SAP Support Center fills the needs of companies working with SAP, a sophisticated software package used to control costs.

- The Application Portfolio Support Services (AP/SS) group helps companies manage their application support function to reduce costs, increase productivity, and extend the life of existing applications.

- The Healthcare Practice focuses on the specialized business needs of the health care industry.

- The Package Consulting Practice provides software consulting services, including package assessments and recommendations.

Recent international contracts include the following:

- Readers Digest contracted with CTG in the U.K. to migrate data centers located in five European countries into one site located outside of London using a combination of CTG U.S. and European consulting groups.

- A major petroleum company has contracted with CTG Europe to develop a refinery information system for three refineries. The development team consists of staff from CTG's oil and gas consulting group in California and communications consultants from the U.S. and Europe.

Systems Integration Services:

CTG Industrial Systems Integration (ISI), headquartered in Melbourne (FL) with over 200 employees, provides systems integration services in the manufacturing and industrial markets.

- ISI has four industry-specific practices--Metals, Pharmaceuticals and General Manufacturing, Logistics, and Petroleum.

- During 1990, ISI received a $4.5 million contract to provide total manufacturing information systems to a new steel plant in Ontario (Canada). On another large project, ISI is partnering with IBM to develop manufacturing information systems for Burroughs Wellcome, an international pharmaceutical producer.

- ISI has performed projects for North Star Steel Co. (an automated process control system), Public Service of New Mexico (a coal-fed

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generating plant monitoring system), Baxter Healthcare Corporation (a warehouse control system), and National Steel Corporation (a caster control system).

- Profimatics, an ISI subsidiary located in Thousand Oaks (CA) with 40 employees, provides IBM and DEC VAX-based applications software products for petrochemical plants and oil refining.

The CTG Institute for Technical and Management Training in Buffalo provides in-depth training for CTG staff. Some 25 technical and 20 marketing and management courses are offered. INPUT estimates that over 1,500 employees attend these classes on an annual basis. Formal training courses are also offered at selected national branch offices.

Industry Markets

CTG's target markets include large organizations in discrete and process manufacturing, financial services, insurance, and state and local government.

- More than 70 of the Fortune 100 are CTG customers.
- Over 90% of revenue is derived from repeat business with existing clients.

CTG's client base is segmented approximately as follows:

Discrete manufacturing	32%
Process manufacturing	23%
Services	16%
Banking and finance	9%
Insurance	5%
Distribution	5%
State and local government	3%
Other	7%
	100%

Geographic Markets

Approximately 87% of CTG's 1991 revenue was derived from the U.S., 11% from Europe, and 2% from Canada. A three-year source of revenue summary follows:

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COMPUTER TASK GROUP, INC.
THREE-YEAR SOURCE OF REVENUE SUMMARY
($ millions)

	FISCAL YEAR					
	1991		1990		1989	
ITEM	REVENUE $	PERCENT OF TOTAL	REVENUE $	PERCENT OF TOTAL	REVENUE $	PERCENT OF TOTAL
U.S.	$248.0	87%	$227.1	93%	$223.6	96%
Europe	32.7	11%	12.9	5%	5.2	2%
Canada	4.4	2%	3.9	2%	4.2	2%
TOTAL	**$285.1**	**100%**	**$243.9**	**100%**	**$233.0**	**100%**

CTG has 67 offices in the U.S., Belgium, Canada, Denmark, England, Germany, and the Netherlands.

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COMPUTER TASK GROUP, INC.
800 Delaware Avenue
Buffalo, NY 14209
(716) 882-8000

David N. Campbell, Chairman and CEO
John P. Courtney, President
Public Corporation, NYSE, Amsterdam Stock Exchange
Total Employees: 4,059 (12/90)
Total Revenue, Fiscal Year End 12/31/90: $243,859,000

The Company

Computer Task Group, Inc. (CTG), founded in 1966, is one of the largest providers of computer-related consulting, systems integration, and professional services to the commercial market in the U.S. Services available through CTG include consulting, systems analysis and design, programming, software conversions, education and training, systems operations, information engineering, imaging technology, networking systems integration, and industrial systems integration.

In June 1989, IBM made an equity investment in CTG, acquiring approximately 1.5 million shares of CTG preferred stock for $21 million.

- In conjunction with this transaction, the two companies agreed to levels of use of CTG's systems engineers on products for IBM and its customers.

- Revenues from IBM, which were about 5% of total revenue prior to this contract, reached $42 million in 1990, representing over 17% of CTG's total revenue.

CTG's mission is to be a recognized leader in the application of technology on behalf of its clients. The company has developed a strategic plan for the 1990s that includes the following:

- Continuing to focus sales and marketing efforts on industries where it has proven capabilities. These include discrete manufacturing, process manufacturing, banking and finance, insurance, and state and local government.

- Capitalizing on the strength of its branch network by continuing to broaden its geographic coverage with new field offices and developing project business and specialized capabilities within the branch operations.

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- Expanding alliances, particularly in the international arena.

- Focusing on European operations, with a goal that they grow, at a minimum, at a level equal to the growth rate of the European marketplace.

- Continued focus on education for CTG consultants and engineers, as well as employee retention and recruiting of professionals with special skills.

CTG has pursued expansion by opening and/or acquiring field offices to attract and support clients. In the past five years, CTG has acquired ten firms ranging in size from $1 million to approximately $30 million in revenue. During 1990, CTG made two acquisitions (for $24 million plus contingent payments based on future performance) as follows:

- In October 1990, CTG acquired Rendeck International N.V. of Amsterdam, a European provider of professional services primarily to large mainframe users in manufacturing, financial services, and banking.

  - The acquisition expands CTG's business to include opportunities outside the U.S. Rendeck has large operations in the Netherlands, the U.K., and Belgium, plus a start-up operation in Denmark.

  - Rendeck had approximately 400 employees at the time of the acquisition and 1989 revenue of $30 million.

  - Rendeck has been renamed Computer Task Group Europe B.V. as of February 1991.

- In September 1990, CTG acquired Connolly Data Systems, Inc. of Lowell (MA).

  - Connolly provides integrated PC local-area network systems in the northeastern U.S.

  - Connolly had approximately 45 employees at the time of the acquisition and 1989 revenue of about $7 million.

  - The operations of Connolly have been merged into CTG's consulting segment.

CTG's stock is listed on the New York Stock Exchange and, effective February 1991, on the Amsterdam Stock Exchange.

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CTG's 1990 revenue reached $243.9 million, a 5% increase over 1989 revenue of $233.0 million. Net income was $7.2 million in 1990, compared to net losses of $7.8 million in 1989. A five-year financial summary follows:

COMPUTER TASK GROUP, INC.
FIVE-YEAR FINANCIAL SUMMARY
($ millions, except per share data)

	FISCAL YEAR				
ITEM	1990	1989	1988	1987	1986
Revenue	$243.9	$233.0	$218.7	$170.1	$143.3
· Percent increase from previous year	5%	7%	29%	19%	24%
Income (loss) before taxes	$12.6	$(11.6) (a)	$10.8	$8.5	$9.3
· Percent increase (decrease) from previous year	*	*	28%	(8%)	25%
· Gross margin	5%	--	5%	5%	6%
Net income (loss)	$7.2	$(7.8)	$6.4	$5.1	$5.1
· Percent increase (decrease) from previous year	*	*	26%	--	26%
· Net margin	3%	--	3%	3%	4%
Earnings (loss) per share	$0.77	$(0.88)	$0.80	$0.66	$0.68
· Percent increase (decrease) from previous year	*	*	21%	(3%)	--

* *Not meaningful.*

(a) Includes losses from closed businesses of $4.2 million and restructuring expenses of $13.2 million.

CTG management attributes 1990 results to the following:

- Approximately $10 million of the revenue increase during 1990 was due to acquisitions. Also, revenue from IBM was $42 million.
- As a result of the restructuring program implemented during 1989, operating costs and expenses decreased from 87.8% of revenue in 1989 to 86.6% of revenue in 1990. Selling, general, and administrative expenses of $21 million, were 15% lower than 1989's expenses of $25 million.

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During 1989, as part of its restructuring program, CTG eliminated certain positions and closed certain branches, resulting in charges to 1989 earnings of $4.2 million for losses on the closing of business units and $13.2 million for other restructuring expenses.

- Before restructuring expenses and losses on closed operations, CTG's 1989 operating income would have been $3.3 million (1.4% of revenue), compared to $10.2 million (4.7% of revenue) in 1988.

Revenue for the six months ending June 30, 1991 reached $141.4 million, a 22% increase over $115.7 million for the same period in 1990. Net income for the period declined 33%, from $3.6 million to $2.4 million.

- The major factor in CTG's revenue growth is the contribution from CTG Europe (formerly Rendeck). However, profit margins from this European business are lower than anticipated, due, to a great extent, to the impact of the recession in the U.K.

- CTG's systems integration client base primarily consists of firms in industries (such as steel, automotive, and pharmaceuticals) that have reduced their purchase of technology in the first half of 1991. Since many of CTG's systems integration costs are fixed, the company operated at profit margins of less than 2%, substantially below plan or historical achievement.

- Revenues from professional services business in North America grew $4.5 million over the first half of 1990; however, profit margins were lower than historic levels.

As of December 31, 1990, CTG had 4,059 employees, segmented as follows:

Marketing/sales	139
Professional staff	3,401
Field management and administration	392
Corporate	127
	4,059

- CTG currently has 4,188 employees throughout 65 offices in the U.S. and six foreign countries.

CTG professional services competitors include AGS Computers, Inc. (NYNEX), Computer Horizons, Keane, and the major accounting firms. Systems integration competitors include

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Andersen Consulting, Electronic Data Systems, DEC, Computer Sciences Corporation, and Analysts International.

Key Products and Services

Approximately 83% of CTG's 1990 revenue was derived from its various professional services and 17% from commercial systems integration activities. A three-year source of revenue summary follows:

COMPUTER TASK GROUP, INC.

THREE-YEAR SOURCE OF REVENUE SUMMARY
($ millions)

	FISCAL YEAR					
	1990		1989		1988	
ITEM	REVENUE $	PERCENT OF TOTAL	REVENUE $	PERCENT OF TOTAL	REVENUE $	PERCENT OF TOTAL
Professional services - domestic	$190.9	78%	$189.8	82%	$178.1	82%
Professional services - international	12.9	5%	5.2	2%	5.2	2%
Systems integration	40.1	17%	38.0	16%	35.4	16%
TOTAL	**$243.9**	**100%**	**$233.0**	**100%**	**$218.7**	**100%**

The scope of professional services work performed by CTG ranges from specific, minor tasks of short duration, to large complex tasks that require multiple systems engineers for a long period of time. CTG offers consultants who are experienced in an industry application or technology, total project systems integration (often on a fixed-fee basis), and per diem services.

- Typically, CTG's professional staff augments and becomes part of the client's on-site software development team on a specific application or project.
- A majority of CTG's clients are large companies with multiple locations and substantial data processing operations. CTG currently has approximately 1,400 clients worldwide, including 85 of the Fortune 100 companies.

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CTG classifies its services into three areas:

- Professional Services. The company's major source of revenue is derived from this type of service. CTG staff provides programming, systems analysis and design, project management, and other services in support of the client's data processing applications.

- Consulting. Examples of specialty areas in which CTG has experience include information engineering, data base consulting, telecommunications/network consulting, conversions, migration, and document management services.

- Commercial Systems Integration Services. These services are provided to the manufacturing and industrial markets through CTG Industrial Systems Integration (formerly Scientific Systems Services). Services provided include management consulting; concept and applications planning studies; Control-Spec™ functional specification and scope-of-work contracts; systems architecture services, including hardware selection, systems software evaluation and selection, application software, and communications; and project implementation.

CTG provides its commercial professional services through a network of branches and field offices.

- Services are provided primarily to discrete and process manufacturing firms. CTG also has clients in banking and finance, distribution, insurance, medical, telecommunications, utilities, state and local government, education/services, and transportation.

- Professional services are provided to clients on a contract basis, usually on a per diem rate. Services may be performed at the client's or one of CTG's 20 project development centers located throughout its branch office network. These centers allow CTG to handle a project entirely off-site, using either CTG computers or using communications links to the client's equipment.

- As a result of IBM's equity investment in CTG, the two companies are working together in the development and delivery of application solutions and services, as well as systems operations.

  - From the date of signing in June 1989 to year end, the number of systems engineers on projects with IBM increased 43%.

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- CTG software development teams are working with IBM's Applications Solutions Division to produce new products. Manufacturing divisions such as the communications products group of IBM are also a major source of software development and documentation.

- As a business partner with IBM, CTG provides services to IBM at the local branch level.

- CTG will team with IBM's Systems Integration Division on a flexible staffing basis, or act as a subcontractor where IBM functions as prime contractor.

- CTG's largest contract to date involves systems operations for the Atlanta-based Bank South data center. Teaming with IBM, CTG is running the data center's operations under a 10-year contract. CTG and IBM have since signed systems operations contracts with Celanese Corporation and Riggs Bank.

CTG's Specialty Consulting Services, organized as CTG's National Extended Support Services (NESS), are closely allied with CTG's professional services business.

· Services are provided through four groups as follows:

- The Communications Group focuses on voice and data communications and network management consulting. Future plans include strengthening its presence as a project consultant in the telecommunications field, especially within vertical markets such as manufacturing, health care, higher education, and finance; the design of on-line customer service applications; and network design and integration. This group was expanded in 1990 with the acquisition of Connolly Data Systems.

- The Document Support Services Group, headquartered in Phoenix, provides written and on-line support materials and instructions, both for technical systems and end users.

  · Documentation clients include United Technologies, the State of Arizona, and IBM.

- The Database Consulting Group plans, designs, and fine-tunes client data base applications.

- The Migration Services Group, headquartered in Buffalo (NY), provides migration and conversion services for clients

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moving from one hardware environment to another, or converting from one operating system or language to another. CTG has completed migration projects at more than 200 sites nationwide.

CTG Industrial Systems Integration (ISI), headquartered in Melbourne (FL) with over 200 employees, provides systems integration services in the manufacturing and industrial markets.

- ISI groups include: Consulting Services, Factory Automation, Logistics and Materials Handling Automation Systems, Manufacturing Automation Systems, Manufacturing Business Applications, and Process Automation Systems.

- During 1990, ISI received a $4.5 million contract to provide total manufacturing information systems to a new steel plant in Ontario (Canada). On another large project, ISI is partnering with IBM to develop manufacturing information systems for Burroughs Wellcome, an international pharmaceutical producer.

- ISI has performed projects for North Star Steel Co. (an automated process control system), Public Service of New Mexico (a coal-fed generating plant monitoring system), Baxter Healthcare Corporation (a warehouse control system), and National Steel Corporation (a caster control system).

- Profimatics, an ISI subsidiary located in Thousand Oaks (CA) with 40 employees, provides IBM and DEC VAX-based application software products for petrochemical plants and oil refining.

The CTG Institute for Technical and Management Training in Buffalo provides in-depth training for CTG staff. Some 30 technical and 20 marketing and management courses are offered. INPUT estimates that over 1,500 employees attend these classes on an annual basis. Formal training courses are also offered at selected national branch offices.

Industry Markets

CTG's target markets include large organizations in discrete and process manufacturing, financial services, insurance, and state and local government.

- Eighty-five of the Fortune 100 and 237 of the Fortune 500 are CTG clients.

- Over 90% of revenue is derived from repeat business with existing clients.

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CTG's client base is segmented approximately as follows:

Discrete manufacturing	32%
Process manufacturing	23%
Services	16%
Banking and finance	9%
Insurance	5%
Distribution	5%
State and local government	3%
Other	7%
	100%

Geographic Markets

Approximately 93% of CTG's 1990 revenue was derived from the U.S., 5% from Europe, and 2% from Canada. A three-year source of revenue summary follows:

COMPUTER TASK GROUP, INC.
THREE-YEAR SOURCE OF REVENUE SUMMARY
($ millions)

	FISCAL YEAR					
	1990		1989		1988	
ITEM	REVENUE $	PERCENT OF TOTAL	REVENUE $	PERCENT OF TOTAL	REVENUE $	PERCENT OF TOTAL
U.S.	$227.1	93%	$223.6	96%	$209.5	96%
Europe	12.9	5%	5.2	2%	5.2	2%
Canada	3.9	2%	4.2	2%	4.0	2%
TOTAL	**$243.9**	**100%**	**$233.0**	**100%**	**$218.7**	**100%**

CTG has 65 offices in the U.S., Belgium, Canada, Denmark, England, Germany, and the Netherlands.

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COMPUTER TASK GROUP, INC.
800 Delaware Avenue
Buffalo, NY 14209
(716) 882-8000

David N. Campbell, Chairman and CEO
John P. Courtney, President
Public Corporation, NYSE
Total Employees: 3,800
Total Revenue, Fiscal Year End
12/31/88: $218,732,000

The Company

Computer Task Group, Inc. (CTG), founded in 1966, is one of the largest providers of computer-related consulting, systems integration, and professional services to the commercial market in the U.S. Services available through CTG include consulting, systems analysis and design, programming, software conversions, education and training, and facilities management (systems operations).

CTG's strategy is to market its professional and systems integration services primarily to large manufacturing/industrial automation, financial services, and telecommunications firms with large hardware installations and data processing operations.

- In terms of growth, CTG historically has opened two to four new branch offices a year. During 1986 the company expanded into international markets with acquisitions in Canada and the U.K. Over the next several years CTG will continue to concentrate its expansion in the U.S., as well as grow in Canada, the U.K., and Western Europe.
- CTG is expanding its specialty services in other industries, such as health care, utilities, and insurance.
- CTG will pursue larger and more complex projects in the $5 to $20 million range.

In June 1989, IBM announced plans to pay $21 million for a 15.3% interest in CTG.

CTG's 1988 revenue reached $218.7 million, a 29% increase over 1987 revenue of $170.1 million. Net income rose 26%, from $5.1 million in 1987 to over $6.4 million in 1988. A five-year financial summary follows:

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COMPUTER TASK GROUP, INC.
FIVE-YEAR FINANCIAL SUMMARY
($ thousands, except per share data)

	FISCAL YEAR				
ITEM	1988	1987	1986	1985	1984
Revenue	$218,732	$170,052	$143,366	$115,711	$82,693
• Percent increase from previous year	29%	19%	24%	40%	54%
Income before taxes	$10,837	$8,495	$9,277	$7,447	$4,054
• Percent increase (decrease) from previous year	28%	(8%)	25%	84%	58%
Net income	$6,420	$5,110	$5,081	$4,021	$2,108
• Percent increase from previous year	26%	--	26%	91%	45%
Earnings per share (a)	$0.80	$0.66	$0.68	$0.68	$0.45
• Percent increase (decrease) from previous year	21%	(3%)	--	51%	36%

(a) Restated to reflect a three-for-two stock split declared on April 30, 1986.

CTG management attributes increases in 1988 revenue to the following:

- Approximately 49% ($24 million) of the increase was due to increase revenues from field branch operations.
- Approximately 39% ($19 million) of the increase was due to acquisitions made during 1988.
- The remaining 12% of the increase was due to international operations (6% or $3 million) and specialty services(6% or $3 million).
- Professional services, delivered through field branch operations, grew approximately 20% and gross margins, as a percent of revenue, improved by 1%.

Offsetting the improvements shown in overall operations were problems encountered in the conversions and major projects businesses.

- Conversions sales dropped 70% compared to 1987. Conversions operations have been restructured and included in

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field operations where management believes it will be able to more directly market its services to the current client base served by field operations.

- Major projects business did not perform to budgeted expectations nor to prior year profit and margin levels because CTG experienced delays in the application development phase of a $25 million systems integration project for USS-POSCO Industries.

During 1987, though revenues increased 19%, net income remained constant compared to 1986.

- International operations generated substantial revenue increases ($4 million), but operated at breakeven for the year due to high non-billable time for the professional staff. CTG also invested $400,000 in new branch operations in the U.K. during 1987.

- During 1987, CTG also invested an additional $500,000 to market the conversion services business.

- CTG continued to experience pricing pressures during 1987. Clients pushing for lower pricing due to competition resulted in lower margins. In October 1987, CTG had a company-wide price increase.

Acquisitions made by CTG include the following:

- During 1988, CTG acquired three professional services firms for a total of $15.6 million.

  - In December 1988, CTG acquired Telecommunications Management Corporation (TMC) of Boston (MA). TMC, with approximately 20 employees and revenue of $2 million, specializes in voice communications and network management services. TMC has provided its services to over 500 end user organizations, including telephone companies, colleges and universities, financial institutions, hospitals, government agencies, and utility companies.

  - In August 1988, CTG acquired Applied Management Systems, Inc. (AMS) of Charlotte (NC), a professional services firm with branch offices in Winston-Salem and Raleigh (NC) and Greenville and Columbia (SC). AMS, with revenues of about $7 million, competed with CTG in the southeastern U.S. The acquisition increases CTG's presence in the Carolinas area.

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- In February 1988, CTG acquired Scientific Systems Services, Inc. (SSS) of Melbourne (FL) for $10.5 million. The acquisition included SSS' subsidiary, Profimatics, which targets its services to oil companies.

  - SSS provides systems integration services to the manufacturing, power, and process industries. Applications provided include computer-integrated manufacturing systems for factory automation, plant-monitoring systems for electric power generation, and monitoring and control systems for metals processing and petroleum refining.

  - SSS and Profimatics, with estimated 1988 revenue of $15 million and approximately 190 employees, now operate as subsidiaries of CTG.

- During 1986, CTG acquired five professional services companies for a total of $7.2 million in cash, plus certain contingent payments based on future performance.

  - In October 1986, CTG acquired maxima Computer Management Consultants, Ltd. of Ottawa. Maxima now operates as maxima/Computer Task Group, Limited, a wholly owned subsidiary of CTG.

  - In August 1986, CTG acquired Creative Computing Company, a Cleveland professional services firm.

  - In June 1986, CTG acquired Shubrooks International, Ltd., a software consulting firm headquartered in Chertsey (UK).

  - In April 1986, CTG acquired Quadra Systems, Inc., an information services consulting firm headquartered in San Antonio (TX).

- During 1985, CTG acquired five information services companies, including Documentation Resources, Inc. of Phoenix; Data Force, Inc. of Seattle (WA); Central Computer Systems, Inc. of San Francisco (CA); Dataware, Inc. of Buffalo (NY); and Berger Vernay & Company of Houston (TX).

Divestitures made by CTG include the following:

- During the first quarter of 1989, CTG sold its investment in Analysts International for $4.6 million, realizing a gain of $2.1 million. CTG originally acquired a 19.13% interest in Analysts International in January 1987.

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- In December 1988, CTG sold its direct marketing business unit, CTG Direct Marketing Services to DMT Intercorp, Inc., a diversified direct marketing company located in Buffalo.

Revenue for the three months ending March 31, 1989 reached $58.6 million, a 16% increase over $50.4 million for the same period a year ago. Net income was $1.5 million, compared to $1.7 million for the same period in 1988.

As of December 31, 1988, CTG had 3,785 employees, segmented as follows:

Marketing/sales	191
Professional staff	3,068
Field management and administration	383
Corporate	143
	3,785

- CTG currently employs approximately 4,000 employees through 71 offices and 20 project development centers in the U.S., Canada, and the U.K.

- The CTG Institute for Technical and Management Training in Buffalo provides in-depth training for CTG staff. Some 30 technical and 20 marketing and management courses are offered. INPUT estimates that over 1,500 employees attend these classes on an annual basis.

CTG professional services competitors include AGS Computers, Inc. (NYNEX), Computer Horizons, Keane, and the Big 8 accounting firms. Systems integration competitors include Andersen Consulting, Electronic Data Systems, DEC, and Computer Sciences Corporation.

Key Products and Services

Approximately 80% ($175 million) of CTG's 1988 revenue was derived from its various professional services and 16% ($35 million) from commercial systems integration activities. Less than 5% ($8 million) of revenue was derived from the direct mail marketing services business that was divested at the end of 1988.

The scope of professional services work performed by CTG ranges from specific, minor tasks of short duration, to large complex tasks that require multiple systems engineers for a long period of time. CTG offers consultants who are experienced in an industry application or technology; total project systems integration (often on a fixed-fee basis); and per diem services.

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- Typically, CTG's professional staff augments and becomes part of the client's on-site software development team on a specific application or project.

- A majority of CTG's clients are large companies with multiple locations and substantial data processing operations. CTG currently has approximately 1,400 clients worldwide, including 85 of the Fortune 100 companies.

CTG classifies its services into three areas:

- Professional Services. The company's major source of revenue is derived from this type of service. CTG staff provides programming, systems analysis and design, and other services in support of the client's data processing applications. These services are provided to clients on a contract basis, usually on a per diem rate.

  - Services are generally performed on the client's site. CTG has also established 20 project development centers throughout its branch office network system. These sites allow CTG to handle a project entirely off-site, using either CTG computers or using communications links to the client's equipment.

  - CTG has strategic alliances with various software vendors to provide installation and application support for their products. CTG is providing integration and application development services in support of software products from vendors such as IBM, Software AG Systems, Inc., Management Science America, and Cullinet.

- Consulting. Many CTG professionals are consultants who are experienced in an industry application or technology. Examples of specialty areas in which CTG has experience include industrial automation, data base consulting, telecommunications, conversions, and documentation services.

  - Industrial automation involves using technology to increase efficiency and expand capabilities on the shop floor from the design and engineering phases through material requirements planning and scheduling activities.

  - Data base consulting is in demand as clients upgrade to newer and more powerful hardware which uses fourth generation languages and relational technology.

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- The telecommunications area encompasses data communication, voice communication, and network management.

- CTG provides DOS-to-MVS conversion services using CORTEX, a conversion process developed by SISROM. CTG/ Dataware, formed with the acquisition of Dataware, Inc. in 1985, assists clients in migrating their application software to run or new or upgraded hardware.

• Commercial Systems Integration Services: These services are provided to the manufacturing and financial services sectors and extend from the large corporate information system through the departmental and plant system, to mission critical real-time automation solutions. Services provided include management consulting; concept and applications planning studies; Control-Spec™ functional specification and scope-of-work contracts; systems architecture services, including hardware selection, systems software evaluation and selection, application software, and communications; and project implementation.

Examples of specific services provided by CTG for certain target markets/applications follows:

Industrial Automation/Manufacturing:

• CTG staff has expertise in the following functional service areas:

- Manufacturing consulting
- Strategic business planning
- Methodology evaluation
- Systems analysis and design
- Hardware/software evaluation
- Project management
- Software engineering
- Interface engineering
- Turnkey project management
- Detail design and coding
- Installation
- Implementation
- Documentation
- Training

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- Applications supported include:
  - Real-time systems
  - Data acquisition systems
  - Graphics and operator/interfacing
  - Process control
  - Hardware/software integration
  - Communications
  - Simulation and modeling
  - Robotics
  - Signal conditioning
  - Logical sequencing and machine control
  - Microprocessor-based systems development
  - Computer-aided design and engineering
  - Biomedical applications
  - Research and development
  - Statistical analysis
  - Scheduling (CPM/PERT)
  - Linear programming
  - Computer-integrated manufacturing (CIM)
  - Materials requirements planning
  - Just-in-time inventory control
  - Shop floor control
  - Multivendor computer integration

- CTG has experience with various hardware environments, including IBM; DEC PDP-11, VAX-730, 750, 780, DEC 10; Gould-SEL; GE; Harris; HP 1000, 3000; Honeywell Level 6; CDC Cyber; Data General Nova, ECLIPSE; Modcomp Classic; Prime; Texas Instruments; Gould Modicon; Westinghouse 2500; Intel 8080-8088; Motorola 6800 and 68000.

- Scientific Systems Services (SSS) has expanded CTG's systems integration activities, providing expertise in developing systems for factory and process supervision, inventory control, and materials handling to manufacturers and distributors.
  - SSS has performed projects for North Star Steel Co. (an automated process control system), Public Service of New Mexico (a coal-fed generating plant monitoring system), Baxter Healthcare Corporation (a warehouse control system), and National Steel Corporation (a caster control system).
  - In April 1989, SSS acquired exclusive U.S. marketing rights to 3100 GPC™ Greenway Protocol Converter, a UNIX-based communications and integration software platform developed by Kilpatrick Green Systems Engineering, Ltd. of

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Australia. The product is designed to facilitate exchange of information between otherwise incompatible systems, to provide a platform for the integration of application functions, and to support communications from process control computers and other factory floor equipment to mainframe computers at the corporate level.

- Contract examples include the following:
  - In January 1989, CTG was awarded a $4 million facilities management contract with Geneva Steel of Orem (UT). CTG will plan and execute a migration of Geneva's applications from Service Centers in Chicago and Pittsburgh owned by the USX Corporation to CTG Service Centers in Orchard Park (NY) and Pittsburg (CA). CTG will manage Geneva's application processing through the spring of 1990.
  - In November 1988, CTG's Industrial Automation Branch was awarded a $3.5 million contract from the Defense System unit of UNISYS Corporation to rehost and develop software on the Advanced Weather Distribution System for the U.S. Air Force Systems Command.
  - In March 1987, CTG was awarded a $25 million, multi-year systems integration project for USS Posco Industries (UPI), a joint venture company of USX Corporation and Korea-based Pohang Steel Company.
    - CTG responsibilities included building a data center, creating a computer environment, migrating systems and data, and developing new application software to support major shop floor control enhancements.
    - CTG has completed the first three phases. However, the application development project has experienced delays. CTG is working with UPI management to complete the project.
- CTG's Amtec subsidiary, located in Los Angeles, supports aerospace business. Clients include Rockwell and the Jet Propulsion Laboratory.
- In February 1989, CTG announced the formation of Tailored Applications Solutions (TAS), a specialty group targeting the CIM marketplace. The TAS group is based in Milwaukee (WI).
  - TAS provides consulting, planning, and programming services to manufacturers and distributors and offers

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tailorable, baseline software products for Master Production Scheduling, Process Industries Manufacturing, Manufacturing Planning and Control, Sales Order Management, and Purchasing.

- The TAS group is currently working on a logistics management, order processing, distribution, and master scheduling integrated system for a European manufacturer.

Financial Services:

- CTG staff has expertise in the following applications:
  - Retail banking
  - Wholesale banking
  - Bank/branch automation
  - Corporate support systems
  - International banking
  - Trust/asset-based systems
  - ATM/POS networking
  - Insurance systems
  - Brokerage systems
- CTG provides consulting services in the following areas:
  - Banking operations
  - Hardware/software evaluation
  - Project management
  - Backup/recovery
  - Quality assurance
  - Implementation methodology
  - Planning
  - Testing
- CTG has project development experience in the following service areas:
  - Entire project teams
  - Conversion teams
  - Package/product support services
  - IMS DB/DC IDMS support
  - Application support
  - Installation/maintenance support

Telecommunications:

- Functional services provided include:

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- Strategic planning
- Project management
- Data administration
- Analysis and design
- Performance tuning
- Automated conversions training
- Information center review and design
- Software package modification and installation
- Local and wide area network design

- Applications supported include:

  - Customer services: Order entry, order distribution, order tracking, message processing, billing, collections, customer inquiry.

  - Network services: Plant inventories, technical work scheduling, facility assignments and maintenance, networking software, LAN design.

  - Operator services: Directory, directory assistance, and intercept.

  - Marketing services: Market analysis, product analysis, and sales office support.

- Projects in this area include the following:

  - CTG developed a strategic plan to enhance the bundling and cross-selling of the products and services of a major New York City-based financial services and credit card company. The plan included architectural specifications for the deployment of a distributed voice/data communications and integrated data base network.

  - CTG designed and implemented an LU-6.2 network to serve over 800 agents for a Fortune 100 New York City insurance company.

  - CTG designed and installed a custom hybrid local area network for the New York City headquarters of a large bank. The network integrated six data centers and linked hundreds of users with gateway technologies.

CTG has expanded its services to other industries, including health care.

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- CTG is currently developing an integrated medical management system for the Cleveland Clinic. The project is in the range of $25 million and will use specially licensed or acquired state-of-the-art estimating, planning, and development tools to reduce the overall project risk.

The CTG Technology Center, formed in 1985, markets CTG's conversion services; houses the company's Corporate Projects Office, which manages major software development projects in excess of $5 million; and functions as the technical resource for CTG, supporting ongoing requirements for training and administration services.

Industry Markets

CTG's target markets include large organizations in discrete and process manufacturing, financial services, telecommunications, and utilities. Eighty-five of the Fortune 100 companies are CTG clients.

CTG's client base is segmented approximately as follows:

Manufacturing	
- Machinery and electronic equipment	19%
- Chemical and petroleum	12%
- Metals	9%
- Other	18%
	58%
Services	19%
Banking and finance	12%
Distribution	4%
Other	7%
	100%

Geographic Markets

Approximately 96% of CTG's 1988 revenue was derived from the U.S., 2% from Canada, and 2% from the U.K.

A three-year geographic source of revenue summary follows:

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COMPUTER TASK GROUP, INC.
THREE-YEAR GEOGRAPHIC SOURCE OF REVENUE SUMMARY
($ millions)

	FISCAL YEAR					
	1988		1987		1986	
ITEM	REVENUE $	PERCENT OF TOTAL	REVENUE $	PERCENT OF TOTAL	REVENUE $	PERCENT OF TOTAL
U.S.	$209.5	96%	$164.0	96%	$141.4	99%
Canada	4.0	2%	2.9	2%	0.5	--
U.K.	4.8	2%	3.2	2%	1.4	1%
Germany	0.4	--	--	--	--	--
TOTAL	**$218.7**	**100%**	**$170.1**	**100%**	**$143.3**	**100%**

CTG has 71 offices and 20 project development centers in the U.S., Canada, and the U.K.

Computer Hardware and Software

CTG has various computers installed at its Technology Center in Orchard Park (NY), including the following:

- 1 IBM 3090
- 1 IBM 4381-2, MVS, VM, CMS, DOS/VSE
- 1 IBM 4341-12, MVS, CMS, DOS/VSE
- 1 DEC VAX-11/750, VMS

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FINANCIAL UPDATE TO PROFILE DATED MARCH 1984

COMPUTER USAGE COMPANY
150 Fourth Street, Suite 600
San Francisco, CA 94103
(415) 543-3940

George C. Strohl, CEO, President, and Treasurer
Public Corporation
Total Employees: 23
Total Revenue, Fiscal Year End 9/30/85: $1,887,373

THE COMPANY

- Computer Usage Company (CUC), incorporated in 1955, markets software products and turnkey systems to clients in the banking industry.
  - CUC formerly offered remote computing services to approximately 300 clients through its Computer Utility Division in Sunnyvale (CA). The division was sold to Electronic Data Systems on September 1, 1983 for $1.3 million.
  - The company also marketed an agriculture turnkey system that accounted for $1.5 million of fiscal 1981 revenue. This business was sold October 30, 1981 to Computer Generation Inc.
- CUC filed for protection and reorganization under Chapter 11 on January 3, 1985 and has since operated as a debtor in possession under the jurisdiction of the U.S. Bankruptcy Court. The filing was necessary due to extreme financial pressures caused by system development delays relating to the IBM version of CUC's international banking system.
- Revenue for fiscal 1985 was $1.9 million, a decrease of 46% from fiscal 1984 revenue of $3.5 million. Net loss was $2.5 million in fiscal 1985 compared to a net loss of $2.2 million in fiscal 1984. A five-year financial summary follows:

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COMPUTER USAGE COMPANY
FIVE-YEAR FINANCIAL SUMMARY (a)
($ thousands, except per share data)

ITEM \ FISCAL YEAR	9/85	9/84	9/83	9/82	9/81
Revenue	$ 1,887	$ 3,469	$4,537	$ 3,276	$5,587
. Percent increase (decrease) from previous year	(46%)	(24%)	38%	(41%)	(2%)
(Loss) from continuing operations	$ (2,452)	$ (2,161)	$ (72)	$ (1,023)	$ (341)
. Percent increase (decrease) from previous year	(13%)	*	93%	(200%)	(197%)
(Loss) per share from continuing operations	$ (1.77)	$ (1.61)	$ (0.06)	$ (0.82)	$ (0.27)
. Percent increase (decrease) from previous year	(10%)	*	93%	(204%)	N/A

* Percent change exceeds 1,000%.

(a) The statements of operations for prior periods have been reclassified to reflect the operating results of the Utility Division as discontinued operations. Utility Division revenue was $3.4 million, $4.7 million, and $5.8 million for fiscal 1983, 1982, and 1981, respectively.

- The decrease in revenue during fiscal 1985 was due to a decrease in operations under the restructuring of the company under Chapter 11.

- Since filing for Chapter 11, CUC has made two agreements, one for equity financing and the other for technical partnership.

  - CUC acquired a $1 million capital infusion in return for 800,000 shares of CUC stock and 400,000 warrants to purchase 400,000 additional shares at $2.50 per share from a private placement group. The funds will be used as operating capital for completion of the new international banking system and the early stage of marketing.

  - Computer Task Group (CTG) has entered into an agreement to assist CUC in product completion and will work with CUC in marketing and installing the international banking system. CUC will provide the base system and CTG will assist each client bank in customization of the system to their specific needs.

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- In addition to hourly compensation for its employees, CTG will receive royalties of 20% on future product sales, not to exceed $800,000 per calendar year or $2 million in total. CTG also has the option to convert CUC's debt to CTG (for services performed to CUC) into stock at $2.25 per share, up to a maximum of $450,000 or 200,000 shares.

- CUC spent approximately $1 million, $1.9 million, and $1.4 million for research and development during fiscal 1985, 1984, and 1983, respectively.

SOURCE OF REVENUE

- CUC generated revenue in fiscal 1985 through various service agreements and sale of hardware equipment.

- CUC currently has approximately 24 active customers. One customer represents 12% and another customer represents 16% of total fiscal 1985 revenue.

  - CUC installed its first IBM version of the international banking system in November 1985.

KEY PRODUCTS AND SERVICES

- CUC currently offers its international banking system on MDS-Quantel Model 40 equipment and on IBM and compatible mainframes under DOS and MVS.

- CUC does not actively market the Funds Management System but continues to support current users.

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COMPUTRAC, INC.
222 Municipal Drive
Richardson, TX 75080
(214) 234-4241

Harry W. Margolis, Chairman and President
Public Corporation, AMEX
Total Employees: 43
Total Revenue, Fiscal Year End 1/31/86: $8,139,402

THE COMPANY

- CompuTrac, Inc., founded in 1977, develops, markets, services, and supports HP-based turnkey systems for the legal profession.
- Fiscal 1986 revenue reached $8.1 million, a 28% increase over fiscal 1985 revenue of $6.4 million. Net income rose 55%, from $720,000 in fiscal 1985 to $1.1 million in fiscal 1986. A five-year financial summary follows:

COMPUTRAC, INC.
FIVE-YEAR FINANCIAL SUMMARY
($ thousands, except per share data)

ITEM \ FISCAL YEAR	1/86	1/85	1/84	1/83	1/82
Revenue	$8,139	$6,380	$2,080	$2,685	$3,159
. Percent increase (decrease) from previous year	28%	207%	(23%)	(15%)	42%
Income (loss) before taxes	$1,957	$1,200	$ (505)	$ 435	$ 842
. Percent increase (decrease) from previous year	63%	338%	(216%)	(48%)	90%
Net income (loss)	$1,116	$ 720	$ (150)	$ 348	$ 490
. Percent increase (decrease) from previous year	55%	580%	(143%)	(29%)	11%
Earnings (loss) per share (a)	$ 0.45	$ 0.29	$ (0.07)	$ 0.17	$ 0.24
. Percent increase (decrease) from previous year	55%	514%	(141%)	(29%)	N/A

(a) Restated to reflect a 3-for-2 stock split on April 7, 1986, effected in the form of a 50% stock dividend.

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- CompuTrac management attributes revenue growth during fiscal 1986 to a 14% increase in systems sales revenue and a 106% increase in services and support revenue.

- Software development costs were approximately $93,850 (1% of revenue) in fiscal 1986, $47,185 (1% of revenue) in fiscal 1985, and $477,248 (23% of revenue) in fiscal 1984.

- On April 24, 1986 CompuTrac completed a second public offering of its common stock. Of the 600,000 shares offered, 495,000 shares were offered by the company and 105,000 shares were offered by selling shareholders. Proceeds to the company were approximately $5.2 million.

  - The company made its initial public offering of common stock in July 1983 and received proceeds of approximately $3.1 million.

- Revenue for the three months ending April 30, 1986 was $2.4 million compared to $1.9 million for the same period in 1985. Net income for the quarter rose 91% from $198,602 to $379,159.

- As of January 31, 1986, CompuTrac had 43 employees. As of March 31, 1986 the company had 55 employees, segmented as follows:

Marketing/sales	8
Technical support	37
General and administrative	10
	55

  - The company currently has 60 employees.

KEY PRODUCTS AND SERVICES

- Approximately 73% of CompuTrac's fiscal 1986 revenue was derived from turnkey system sales, 24% from associated software support and maintenance services, and the remaining 3% from interest income. A three-year summary of source of revenue follows ($ thousands):

FISCAL YEAR / ITEM	1/86		1/85		1/84	
	Revenue	Percent of Total	Revenue	Percent of Total	Revenue	Percent of Total
System sales	$5,940	73%	$5,202	82%	$1,395	67%
Services and support	1,988	24	964	15	526	25
Interest income	211	3	214	3	159	8
Total	$8,139	100%	$6,380	100%	$2,080	100%

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- CompuTrac currently markets HP-3000-based turnkey systems to mid- to large-size law firms throughout North America. System prices range from $80,000 to $500,000.

  - The company's initial turnkey system was designed to run on HP-1000 series computers. During fiscal 1985 CompuTrac began marketing its HP-3000-based system.

  - To date, CompuTrac has installed over 160 turnkey systems.

  - A five-year summary of CompuTrac system sales follows:

	1/86	1/85	1/84	1/83	1/82
System sales					
HP-3000	24	20	-	-	-
HP-1000	-	4	7	10	13
Total	24	24	7	10	13

- CompuTrac's turnkey systems include the following law firm management application software products:

  - Timekeeping: The operator enters data supplied by the lawyers and other timekeepers, including identity of the timekeeper, date, client number, client matter, time, and description of the work performed. The time charged to a given file is computed at the hourly rate of the timekeeper based on the billing rate assigned to the file or the attorney. At the time of input, the operator can override the computed rate if the timekeeper has so indicated on the time slip. At the time of billing the client, the billing attorney may make further adjustments to the bill.

  - Client Billing: The standard billing memorandum contains a summary of time for each timekeeper, billing history, individual time entries, disbursements, and similar information. The billing attorney reviews the data, fills in the amount to be billed, and indicates any special handling of the bill. The system permits customized treatment of different clients' billing, depending on the specificity of detail required or requested.

  - Client Disbursements: This application incorporates summary disbursements billed to the client in a lump sum, such as photocopies and long-distance phone calls, and itemized disbursements such as filing fees.

  - Accounting and Reporting: The basic applications include accounts receivable, work-in-process, management reports, file indexing, and selective report generation.

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- "DARWIN": This application has a variety of text-oriented and field-oriented applications. Law firm uses include work product retrieval, litigation support, personnel records, recruiting data bases, conflict of interest systems, indexing of word processing documents, library cataloging, will indexing, and brief banks. CompuTrac is considering marketing the "DARWIN" software package to users outside the legal profession. To date, the company has sold "DARWIN" to one user outside the legal profession.

- Other programs available for purchase include general ledger/check-writer, word processing, accounts payable, report writer, conflict of interest, case management, docket/calendar control, photocopy interface, optical character reader interface, telephone systems interface, and trust accounting.

- All of CompuTrac's turnkey systems are sold in conjunction with a software maintenance package. Monthly software maintenance fees per customer range from $500 to $1,700, with an average of $1,000 for newly installed systems. Hardware maintenance is provided by HP.

INDUSTRY MARKETS

- One hundred percent of CompuTrac's fiscal 1986 revenue was derived from the legal profession.

GEOGRAPHIC MARKETS

- Approximately 94% of CompuTrac's fiscal 1986 revenue was derived from the U.S. and 6% from Canada.

- CompuTrac has one regional support office in San Diego (CA).

COMPUTER HARDWARE AND SOFTWARE

- CompuTrac has the following computers installed at its headquarters:

  - 1 HP-3000, Series 58.
  - 1 HP-3000, Series 42.
  - 2 HP-3000, Series 37s.
  - 3 HP-1000s.

- The company is also purchasing an HP-3000, Series 70, and a Series 930 to be used for the development and implementation of its software systems.

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COMPUSERVE INCORPORATED
5000 Arlington Centre Blvd.
Columbus, OH 43220
(614) 457-8600

Charles W. McCall, President and CEO
Wholly Owned Subsidiary of H&R Block, Inc.
Total Employees: 1,479 (12/89)
Total Revenue, Fiscal Year End 4/30/89: $173,116,000

The Company

CompuServe Incorporated, founded in 1969, provides remote computing, electronic mail, data base access, internal communications, and value-added network services, and application and systems software products to major U.S. corporations and government agencies. CompuServe also provides communication and information processing services to owners of microcomputers. CompuServe has operated as a wholly owned subsidiary of H&R Block since it was acquired in May 1980.

CompuServe's information service for individual personal computer owners currently has more than 548,000 members around the world, making it the largest on-line information service for microcomputer users. CompuServe also provides electronic mail, software, and value-added packet data network services to more than 2,000 major U.S. corporations and government agencies.

CompuServe's fiscal 1989 revenue reached $173.1 million, a 16% increase over fiscal 1988 revenue of nearly $149.2 million. Pretax earnings rose 22%, from $25.2 million in fiscal 1988 to over $30.6 million in fiscal 1989. In the three-year summary that follows, financials prior to fiscal 1989 have been restated to reflect the pooling-of-interests acquisition of Access Technology, Inc. in October 1988:

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COMPUSERVE INCORPORATED
THREE-YEAR FINANCIAL SUMMARY
($ millions)

	FISCAL YEAR		
ITEM	4/89	4/88	4/87
Revenue	$173.1	$149.2	$114.7
• Percent increase from previous year	16%	30%	N/A
Income before taxes	$30.6	$25.2	$18.4
• Percent increase from previous year	21%	37%	N/A

Revenue for the six months ending October 31, 1989 reached $99.2 million, a 19% increase over $83.4 million for the same period in 1988. Pretax earnings rose 26%, from $15 million to over $18.8 million.

Acquisitions made by CompuServe include the following:

- In June 1989, CompuServe acquired Source Telecomputing Corporation of McLean (VA) from Readers Digest. Source Telecomputing operated The Source, an on-line information service.
  - Source Telecomputing had approximately 50 employees and an estimated 53,000 members at the time of the acquisition. These clients are being consolidated with the CompuServe Information Service's membership.
- In May 1989, CompuServe completed the acquisition of Applied Computing of Sydney (Australia).
  - Applied Computing is the major distributor of CompuServe's 20/20 integrated spreadsheet software package, which is produced by CompuServe's Access Technology subsidiary. Applied Computing also represents three other software products and employs 23 people.
  - With offices in Sydney, Melbourne, and Wellington, Applied Computing serves major markets in Australia and New Zealand.
  - Applied Computing now operates within CompuServe's Software Products Division.

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- In October 1988, CompuServe acquired Access Technology, Inc. of Natick (MA) for approximately $36.8 million in H&R Block common stock.

  - Access Technology provides spreadsheet modeling software for various hardware platforms. Its principal product is 20/20™.

  - Access Technology had revenue of $18.3 million and net income of $2.5 million for the fiscal year end April 30, 1988 and approximately 175 employees at the time of the acquisition.

  - Access Technology now operates as a subsidiary of CompuServe within its Software Products Division.

- In October 1987, CompuServe acquired Collier-Jackson, Inc. of Tampa (FL).

  - Collier-Jackson develops, markets, and supports business management and newspaper management application software products for DEC VAX and Hewlett-Packard computers.

  - Collier-Jackson now operates as a subsidiary within CompuServe's Software Products Division.

- In January 1987, CompuServe completed the acquisition of the data base management software business of Software House of Cambridge (MA). With the more than 100 employees acquired with this business, CompuServe formed a new business unit, Software Products Division, and named the data base management software business CompuServe Data Technologies.

CompuServe currently is organized into four divisions as follows:

- The Information Services Division, with 400 employees, provides microcomputer users access to a range of general information data bases in the areas of business, research, demographics, and news, as well as electronic mail, interactive conferencing, home shopping, financial transaction services, and travel planning services.

- The Business Services Division, with 200 employees, offers access to application programs, financial data bases, and communications services to a wide range of businesses.

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Electronic mail, electronic data interchange, private videotex, and packet data network services are also provided.

- The Software Products Division, with 532 employees, provides data base management, spreadsheet modeling, and financial, human resources, and newspaper management software products through several wholly owned subsidiaries.

- The Support Services Division, with 275 employees, provides systems engineering, product development, computer operations, and associated support services to CompuServe's other units.

As of April 1989, CompuServe had approximately 1,400 employees. The company currently has 1,479 employees.

Key Products and Services

INPUT estimates approximately 75% of CompuServe's fiscal 1989 revenue was derived from network/electronic information services (50% network application services and 50% from electronic information services) and 25% from its various systems and application software products.

Through the CompuServe Information Service, the company provides members who own a microcomputer and a modem with on-line access to a range of information and communications services.

- Including Source members, the CompuServe Information Service currently has more than 548,000 subscribers. At the end of calendar 1988, the company had 485,000 subscribers, compared with 396,000 at the end of calendar 1987, and 333,000 at the end of calendar 1986.

- The service offers a selection of more than 1,400 subject areas in the following categories:

  - Communications & Bulletin Boards
  - News, Weather & Sports
  - Travel
  - The Electronic Mall/Shopping
  - Money Matters & Markets
  - Entertainment and Games
  - Home, Health & Family
  - Education and Reference
  - Personal Computing Services

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- In collaboration with Ziff-Davis Publishing, during fiscal 1989 CompuServe introduced *PCMagNet*, an on-line service that allows *PC Magazine* subscribers to interact with the magazine's editors and columnists. The service also provides an on-line library of over 1,000 productivity-enhancing software programs that can be downloaded directly into the user's computer.

- In an effort to expand its on-line information services to international markets, CompuServe entered into a partnership with Radio Schweiz, a Swiss electronic information company. The CompuServe Information Service will be introduced, locally marketed, and supported in the U.K., Switzerland, and other European countries. During 1990, local services will be developed for European countries based on the CompuServe model.

- During fiscal 1989, CompuServe concluded agreements with several companies, including major manufacturers of computer modems, to bundle CompuServe memberships with their microcomputer products. Membership kit sales are also available through retail outlets, including Sears Business Centers and Waldenbooks.

Through CompuServe's Business Services Division, the company provides corporate and business clients access to electronic communications products, data bases, and value-added packet switched network services.

- Communications Services include the following:
  - The CompuServe Electronic Data Interchange (EDI) service
  - Interchange™ integrates the following electronic communication and information delivery products into a single compatible environment:
    - CompuServe Mail electronic mail communication system
    - DISPLAY electronic publishing system
    - FORUM electronic conferencing system
    - ACCESS data library
  - Professional Connection Plus℠ is communications software for IBM and compatible microcomputers.

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- Information Services include access to the following data bases and software tools:
  - Financial Analysis Data Bases:
    - 10K Plus™ integrates screening, sorting, and ad hoc reporting of fundamental financial data bases for access and analysis of historical and current financial data. Data bases currently available as part of the system include WorldScope, COMPUSTAT II, Disclosure II, Banking Data Services (BDS), Value Line Data Base II, Institutional Brokers' Estimate System (I/B/E/S), and Standard & Poor's Register Online.
    - Securities Market Data is an interactive securities system of pricing data bases and software for data retrieval and analysis, including North American Securities (VALUE), International Securities data base, Quick Quote™, and Commodities Database.
  - Demographic Services Data Bases:
    - SUPERSITE demographic data base
    - DORIS (Demographic Online Retrieval Information System)
    - CITIBASE time-series economic data base
  - Data Base Management Systems:
    - System 1022
    - ECL/80
  - Research and Development Systems:
    - Response Surface Methodology (RSM)
    - Computer Optimized Experimental Design (COED)
  - News Retrieval Services:
    - Executive News Service SM, developed by CompuServe, monitors and scans the AP and UPI news wires, Reuters Financial Report, OTC NewsAlert, McGraw-Hill Business Report, and the Washington Post for topic areas based on user criteria.

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- IQuest[SM] provides access to reference resources stored in over 900 keyword searchable data bases, including newspapers, newsletters, news magazines, and industry and trade journals.

- Value-added network services, one of the fastest-growing segments of CompuServe's business, supports clients in various business information, communications exchange, and transaction management environments.

  - CompuServe is the primary service provider for VISA USA's nationwide point-of-sale credit card authorizations.

- Fiscal 1989 announcements made by the Business Services Division include the following:

  - CompuServe customers now have local dial-up access to the CompuServe network from over 400 major U.S. cities, and via satellite links from over 100 foreign countries.

  - Through an agreement with SoftSwitch, CompuServe introduced an interconnection between InfoPlex, its corporate electronic mail system, and number of widely used private in-house electronic mail systems. The technology enables users of private systems, such as IBM Professional Office System, DEC ALL-in-1, and Wang Office, to exchange messages and files with InfoPlex users at remote offices.

  - CompuServe established a connection that allows users of its electronic mail systems to send messages to fax machines.

- Business Services are provided to a range of clients including investment and commercial banking institutions, insurance companies, pharmaceutical companies, publishers, retail marketers, lodging industry members, major airlines, automotive industry members, credit card companies, and government agencies.

CompuServe's Software Products Division develops, markets, and supports software products through the following units:

- Access Technology, Inc., the largest component of the Software Products Division, is headquartered in Natick (MA). Access Technology, with over 175 employees, provides integrated spreadsheet modeling software for multiuser computers.

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- 20/20™ is an integrated spreadsheet available for minicomputers, mainframes, micro workstations, and personal computers from various manufacturers, including DEC IBM, Wang, Data General, Prime, Hewlett-Packard, AT&T, Sun, Apollo, and other UNIX-based machines and PC compatibles. There are currently over 30,000 multiuser site licenses, most of which are in a VAX environment.

- 20/20 Database Connection, the 20/20 Word Processing Connection, 20/20 Wide Writer, and optional interfaces to various office automation environments are also available.

• CompuServe Data Technologies, headquartered in Cambridge (MA), provides two systems software products for DEC computers.

- System 1032® is a fourth-generation language and data base management system for the VAX environment.

- System 1022® is a data base management system for DECsystem computers.

• Collier-Jackson, headquartered in Tampa (FL) with 150 employees, develops, markets, and supports the World Class Series™ of accounting, human resource management, and newspaper management software products for DEC VAX and HP 3000 systems.

- Collier-Jackson currently has approximately 3,300 products installed in the U.S. and Canada.

Industry Markets

CompuServe's fiscal 1989 revenue was derived primarily from clients in the banking and finance, retail, information services, and manufacturing industries, as well as individual microcomputer users.

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Geographic Markets

The majority of CompuServe's fiscal 1989 revenue was derived from the U.S.

CompuServe's products and services are marketed to corporate customers and supported through the following branch offices: Irvine, Santa Clara, San Francisco, and Los Angeles (CA); Phoenix (AZ); Denver (CO); Memphis (TN); Miami (FL); Atlanta (GA); Louisville (KY); Dallas and Houston (TX); Cleveland, Columbus, and Toledo (OH); Westport (CT); Chicago (IL); Indianapolis (IN); Boston (MA); Detroit (MI); Minneapolis (MN); St. Louis (MN); Philadelphia and Pittsburgh (PA); Rochelle Park (NJ); New York (NY), and Washington, D.C.

Computer Hardware and Software

CompuServe has data centers in Columbus and Dublin (OH). Equipment available at the centers includes:

- 25 DEC KL processors running under CompuServe's proprietary operating system
- 7 SC-30 processors running under CompuServe's proprietary operating system
- 6 DEC VAXs

Access to the CompuServe network is provided locally in over 400 major U.S. metropolitan areas via leased lines. With WATS lines and TYMNET and Telenet supplemental networks, CompuServe can be accessed from virtually any domestic exchange. Via satellite link, CompuServe can be accessed from more than 100 countries.

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CONCORD COMPUTING CORPORATION
2525 Horizon Lake Drive
Suite 120
Memphis, TN 38133
Phone: (901) 371-8000
Fax: (901) 371-8093

Dan M. Palmer, Chairman, President, and CEO
Public Corporation, NASDAQ
Total Employees: 392
Total Revenue, Fiscal Year End
9/30/91: $48,144,000

The Company

Concord Computing Corporation provides a range of processing services for the authorization, control, and settlement of transactions of consumers using checks, credit cards, debit cards, and cash cards at supermarkets, truck stops, convenience stores, drug stores, and other retail locations.

- Concord Computing was incorporated in 1970 in Massachusetts. In June 1984, the company made an initial public offering of 400,000 shares of its common stock.

Concord Computing is organized into several business units, most of which operate autonomously:

- Bank Card Services--which include credit card authorization, data capture, and settlement--are provided to retail merchants through EFTS, Inc., a wholly owned subsidiary located in Memphis (TN). EFTS was acquired by Concord Computing during 1985.

- Check Services--which include check authorization and settlement--are provided to supermarkets and drug store chains by Concord Computing's Retail Service Division located in Chicago.

- Trucking Services--which include cash card and cash forwarding--are provided to trucking firms through Concord Computing's EFTS subsidiary.

- EFT Services are provided to financial institutions through Network EFT, Inc. (NEFTI) of Chicago, a majority-owned (57%) subsidiary acquired in 1981.

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- Concord Computing also supplies terminal and communications equipment to transaction networks, retailers, and banks through its VMT, Inc. subsidiary.

Fiscal 1991 revenue reached $48.1 million, a 29% increase over fiscal 1990 revenue of $37.2 million. Net income rose 42%, from $5.1 million in fiscal 1990 to $7.3 million in fiscal 1991. A five-year financial summary follows:

CONCORD COMPUTING CORPORATION
FIVE-YEAR FINANCIAL SUMMARY
($ millions, except per share data)

	FISCAL YEAR				
ITEM	9/91	9/90	9/89	9/88	9/87
Revenue	$48.1	$37.2	$29.4	$27.2	$21.7
· Percent increase from previous year	29%	27%	8%	25%	53%
Income before taxes and extraordinary item	$12.0	$8.5	$5.9	$4.6	$1.7
· Percent increase from previous year	42%	44%	28%	178%	*
· Gross margin	25%	23%	20%	17%	8%
Net income	$7.3	$5.1	$3.5	$2.8 (a)	$1.1 (a)
· Percent increase from previous year	42%	46%	28%	158%	*
· Net margin	15%	14%	12%	10%	5%
Earnings per share (b)	$0.67	$0.48	$0.33	$0.27	$0.11
· Percent increase from previous year	40%	45%	22%	145%	*

* *Percent change exceeds 1,000%.*

(a) *Includes tax benefits from net operating loss carryforwards of $24,000 and $165,000 for fiscal 1988 and 198,7 respectively.*

(b) *Restated to reflect a three-for-one stock split effective April 1, 1991.*

Increases in net income during fiscal 1991 were due to increased revenues and improved profit margins in the Bank Card Services, Trucking Services, and Check Services areas.

- The growth was a result of an increase in revenue of 48% in Bank Card Services, 31% in Trucking Services, and 4% in Check Services.

- Increases in revenues were due to additional volume from existing customers and the addition of new customers in Bank

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Card and Trucking Services. The increase in the number of customers was achieved by increasing personnel in the telemarketing group for Bank Card and Trucking Services, which was the major reason selling, general, and administrative expenses increased 23%.

- The company has been able to improve profit margins due to its ability to process an increased volume of transactions without incurring additional fixed costs.

As of September 30, 1991, Concord Computing had 392 full- and part-time employees, compared to 347 employees at the end of fiscal 1990. Employees are segmented approximately as follows:

Engineering and technical	25
Manufacturing and operations	195
Sales and administration	172
	392

Key Products and Services

Approximately 95% of Concord Computing's fiscal 1991 revenue was derived from the company's various processing services. The remaining 5% of revenue was derived from sales of terminals and communication equipment.

A three-year summary of source of revenue by business unit follows:

CONCORD COMPUTING CORPORATION
THREE-YEAR SOURCE OF REVENUE SUMMARY
($ millions)

	FISCAL YEAR					
	9/91		9/90		9/89	
ITEM	REVENUE $	PERCENT OF TOTAL	REVENUE $	PERCENT OF TOTAL	REVENUE $	PERCENT OF TOTAL
Bank Card Services	$24.0	50%	$16.9	45%	$10.7	36%
Check Services	8.2	17%	7.8	21%	7.3	25%
Trucking Services	10.1	21%	7.4	20%	5.1	17%
EFT Services	3.4	7%	3.3	9%	4.0	14%
Terminal Products	2.4	5%	1.8	5%	2.3	8%
TOTAL	**$48.1**	**100%**	**$37.2**	**100%**	**$29.4**	**100%**

EFS, Inc., a wholly owned subsidiary of Concord Computing, provides bank credit card authorization, sales data capture, and

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settlement processing services for VISA, MasterCard, Discover, and American Express transactions at retail points of sale.

- The company places electronic terminals at retail merchant locations to process credit sales transactions, including daily payment to the merchant.

- When a consumer makes a purchase at a retailer, the consumer's card-issuing bank reimburses EFTS the next day for all transactions authorized, less an interchange fee. EFTS then reimburses the merchants, less a discount fee. EFTS also receives revenue from the rental of terminal equipment.

- Bank Card Services are currently used by over 25,000 retailers nationwide, compared to 18,000 retailers a year ago.

The Retail (Check) Services Division authorizes the cashing of checks by consumers in supermarkets and drug store chains, primarily in the Midwest and West.

- During 1988, the company renewed long-term contracts with two dominant supermarket chains in Chicago, including Concord Computing's largest single customer. The company also completed the installation of service for the two largest supermarket chains in St. Louis and began installing service in the Kansas City market.

Trucking Services allow truck drivers to transact the purchase of fuel and services and receive cash advances at any of over 4,000 authorized truck stops nationwide.

- Trucking companies are issued plastic cards and checks by Concord Computing's EFTS subsidiary. Each time a truck driver gets cash, fuel, or services, EFTS gives an approval and records the transaction. Truck stops are reimbursed daily by EFTS.

- Concord Computing, through EFTS, receives fees from the truck stops and trucking companies for these transactions.

- The trucking companies also access EFS's computers for data about their drivers.

EFT Services are supplied by Concord Computing's Network EFT, Inc. subsidiary. These services are used by financial institutions--such as banks, savings and loan associations, and credit unions--to make deposit and withdrawal services available to customers at supermarkets and convenience stores.

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- Services typically include cash withdrawals from checking and savings accounts, deposit-taking, balance inquiries, and cash advances.

- During fiscal 1991, Concord Computing processed transactions for customers of 831 financial institutions through terminals located in 544 supermarkets and convenience stores, compared to fiscal 1990, when the company processed transactions for customers of 798 financial institutions through terminals located in 519 supermarkets and convenience stores.

Concord Computing designs, develops, and contracts with manufacturers to build the LINX family of terminal products and communication equipment for use in transaction processing networks. The company sells these products to financial institutions, supermarket chains, retailers, data processing companies, regional electronic funds transfer networks, and third-party processors.

Industry Markets

Approximately 67% of Concord Computing's fiscal 1991 revenue was derived from the retail industry, 21% from the trucking industry, and 7% from the banking and finance industry. The remaining 5% of revenue was derived from terminal product sales to a range of industries.

In fiscal 1991, 1990, 1989, and 1988, one customer, which holds a 37% ownership in NEFTS, accounted for 7%, 9%, 11%, and 11%, respectively, of revenues.

Geographic Markets

One hundred percent of Concord Computing's revenue is derived from the U.S.

In addition to its headquarters in Memphis (TN), the company has sales/field offices in Elk Grove (IL), Independence and St. Louis (MO), and Aurora (CO).

Since 1988, Concord Computing has had a royalty and license fee arrangement with a Korean company granting it an exclusive license to manufacture and sell specified cash dispensing system products in Korea and a non-exclusive license to sell the products worldwide, except in the U.S. To date, Concord Computing has received $675,000 in license fees from this agreement.

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Computer Hardware

Concord Computing's Memphis data center has Stratus systems installed for Trucking and Bank Card Services. A center in Elk Grove (IL) has a Tandem system in support of the company's Check Services and EFT Services.

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CORTEX CORPORATION
100 Fifth Avenue
Waltham, MA 02154
(617) 622-1900

David J. Holroyd, President and CEO
Private Corporation
Total Employees: 80
Total Revenue, Fiscal Year End
6/30/91: $9,200,000

The Company

Cortex Corporation markets and supports CorVision™, an application generator for the Digital VAX environment. The company also provides training and consulting professional services.

- Cortex was founded as an application development tools company in 1977. In 1982, the company shifted its focus to the development of computer-aided software engineering (CASE) technology.
- The first commercial version of Cortex's CASE system, called Application Factory, was delivered in 1984. In October 1987, the company introduced the current product, CorVision.
- Cortex is a Digital Complementary Software House (CSH) program member and has been endorsed as an Integrated CASE partner under Digital's COHESION strategy. Cortex also cooperates with Digital on various engineering and development projects.

Cortex is owned by venture investors (including InnoVen, Regional Financial Enterprises, Xerox Corporation, Accel Group, and Schroder Group), Cortex management and staff, and certain private investors.

Cortex's fiscal 1991 revenue was $9.2 million, the same as fiscal 1990 revenue. A five-year revenue summary follows:

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CORTEX CORPORATION
FIVE-YEAR REVENUE SUMMARY
($ millions)

	FISCAL YEAR				
ITEM	6/91	6/90	6/89	6/88	6/87
Revenue	$9.2	$9.2	$9.0	$5.4	$4.1
· Percent increase from previous year	--	2%	67%	32%	30%

Cortex management anticipates that fiscal 1992 revenue will reach $11.5 million.

Cortex currently has approximately 80 employees, segmented as follows:

Sales and marketing	28%
Education and professional services	23%
Customer support	20%
Research and development	17%
Finance and administration	12%
	100%

Key Products and Services

Approximately 63% of Cortex's revenue is derived from software licenses, 16% from associated maintenance services, 17% from consulting, and 4% from training.

CorVision is a repository-based application generator for the Digital VAX family of computers that automatically generates sophisticated full-scale business applications.

- The product transparently integrates a number of application design, specification, construction, and developer assistance tools in one development environment.
  - Graphic diagramming and screen and report painting tools are linked with a VAX-based generator. Using these design tools on workstations or IBM-compatible PC/ATs, developers specify the application components to capture a high-level or logical view of an application.
  - Specifications are collected in CorVision's multiuser, VAX-based repository.
  - An intelligent guidance system provides continual feedback throughout the development process.

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- CorVision uses the specifications to automatically convert the high-level application description into an entire multiuser VMS application that is compiled and linked, complete with full system and end-user documentation.

- CorVision generates 100% of the code for commercial applications automatically.

· CorVision can read and write Digital's CDD/Repository and other specification sources, including upper CASE tools from KnowledgeWare and Intersolv.

· Applications can use various run-time data managers, including RMS, Rdb/VMS, Sybase, ORACLE, and INGRES. CorVision also supports VAX clusters, DECnet, and other NAS and Open Systems services.

· CorVision is priced from $25,000 for an entry-level Digital VAX system. A 90-day warranty is provided with each license. Thereafter, annual maintenance contracts are available for 12.5% to 15% of the purchase price.

· There are currently over 2,050 Cortex product licenses worldwide (over 450 development licenses and over 1,600 run-time licenses).

CorVision is best suited for the development of medium to large commercial MIS production applications that support multiple interactive users, access VAX standard data bases, use numerous screen and report formats, and change frequently over their lifetime.

· CorVision has been used to develop a range of applications, including accounting, banking, distribution, education, financial, government, insurance, inventory, manufacturing, personnel, payroll, retail, sales management, production and quality control, requirements tracking, transportation, travel, and utilities.

Support/professional services provided by Cortex include the following:

· Customer Support provides hotline support and technical advice and information to North American customers; technical bulletins, quality assurance testing, and new software versions; and technical support for international subsidiaries and distributors.

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- The Education Department provides instruction on the basic use of CorVision, Advanced Techniques and Systems Management, Data Design Considerations, and New Features. Courses are offered at Cortex's headquarters in Waltham, at customer sites upon request, and via international subsidiaries and distributors.
- Documentation and reference materials are also provided.
- The Professional Services Group provides assistance in planning projects, methodology expertise and guidance, reviews of customers' development work, and develops applications and provides knowledge transfer.
- Cortex customers have established an active and well-subscribed Cortex Users' Society, CORUS, which holds periodic regional meetings and an annual national U.S. conference. CORUS also maintains international affiliates in Europe and the Pacific Rim.

Industry Markets

Cortex derives its revenue from clients across industry sectors.

Customers typically are large corporations or public institutions with in-house development organizations. Typical customers include E.I. DuPont de Nemours, Eastman Kodak, Security Pacific, AT&T, and Maytag.

The company's products are also used by third-party software developers, such as Information Engineering Associates, Command Data, Atek, Price Waterhouse, and Order Processing Technologies, which provide application-specific added value within the Digital marketplace.

Geographic Markets

Approximately 57% of Cortex's fiscal 1991 revenue was derived from North America and 43% from international sources.

CorVision is marketed in the U.S. by a direct sales force. The domestic sales operation includes Canada, and Bermuda, where there is a well-established and active agent.

Outside the U.S., Canada, and Bermuda, Cortex products are available in Australia, Belgium, Eire, Finland, France, Germany, Hong Kong, Italy, Luxembourg, Malaysia, the Netherlands, New Zealand, Spain, Taiwan, and the U.K.

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CORTEX CORPORATION
138 Technology Drive
Waltham, MA 02154
(617) 894-7000

Craig Hill, Chairman
Stuart J. Miller, President and CEO
Private Corporation
Total Employees: 125
Total Revenue, Fiscal Year End
6/30/88: $7,000,000

The Company

Cortex Corporation specializes in building integrated application development tools to increase the productivity of software developers in the DEC VAX environment.

- Cortex was founded in 1977 by Craig Hill and Richard Bertold to provide contract programming and consulting services. These services were provided using the company's own fourth-generation language, Builder.
- In 1981, Cortex made a strategic decision to enter the computer-aided software engineering (CASE) product market by developing a product that would make manual programming obsolete.
- In March 1984, Cortex introduced its first commercially available CASE product, Application Factory™, the industry's first application generator for DEC VAX/VMS environments.
- In September 1987, Cortex introduced CorVision™, an integrated CASE application development system for DEC VAX/VMS environments based on the company's Builder fourth-generation language and Application Factory application generator technologies. CorVision provides complete, transparent integration of a pictorial design and specification capability with automated code and documentation generation.

Self-funded for its first 10 years, Cortex received its first venture financing during 1987. Five venture captial firms invested in Cortex: InnoVen, Xerox Venture Capital, Accel Partners, Schroder Venture Managers, and Regional Financial Enterprises.

Cortex's fiscal 1988 revenue reached an estimated $7 million, a 40% increase over fiscal 1987 revenue of $5 million.

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During 1987, Cortex signed two multimillion-dollar development contracts, as follows:

- Under a contract with NCR Corporation, Cortex is porting CorVision to three NCR product lines. NCR will market these versions with their hardware under the CorVision name.
- Under an agreement with E. I. DuPont & Co., DuPont will receive licenses to existing and future Cortex products in exchange for DuPont funding. The funding will be used for product enhancements and new-product development.

Cortex management believes that the company has no competition since there are currently no other vendors offering similar products for the DEC VAX environment.

Key Products and Services

One hundred percent of Cortex's fiscal 1988 revenue was derived from the company's CorVision software products and associated support services.

CorVision, introduced in September 1987, automatically generates production applications for DEC VAX computers directly from design diagrams and specifications. The product, which supercedes Cortex's Application Factory, automates most of the application software life cycle, including design, programming, testing, integration, implementation, and maintenance.

- Using an IBM PC/AT-compatible workstation linked to a DEC VAX, the developer uses CorVision's Picture Progamming™ system to create a visual representation of an application with icons, symbols, pop-up menus, and windows.
- Data dictionary entries, file structures, menus, screens, reports, and logic are all graphically designed at the workstation. Simultaneously, the design specifications stored in a central repository on the VAX are updated from the diagrams, and can therefore be shared by all members of the development team. Throughout the design process, the Intelligent Guidance System serves as an interactive advisor, recommending the next logical step in design and specification, and constantly checking for completeness and consistency.
- Design specifications are then translated into a completely linked and compiled language for the DEC VAX. Because CorVision has the ability to capture the logical meaning of the

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diagrams created at the workstation, it is able to drive the integrated VAX-based applications generator directly. System documentation is automatically generated at the same time, all from the drawings.

- Applications built with CorVision use DEC's standard RMS file system or Rdb, DEC's relational data base. They also support VAX clusters and standard VMS data types and languages.

- CorVision automatically generates 95-98% of the application in compiled machine code, as well as complete system documentation. Developers can add the remaining 2-5% of code with Cortex's Builder or with any native VAX third-generation language.

- Applications are also maintained using Picture Programming. The developer modifies diagrams to reflect new requirements that simultaneously update the design and specifications stored in the central repository. CorVision then regenerates the affected parts of the code and data structure, producing a newly compiled, linked, and documented application.

CorVision is priced from $55,000 for an entry-level DEC VAX system. A 90-day warranty is provided with each license. Thereafter, annual maintenance contracts are available for 12.5% to 15% of the purchase price.

There are currently approximately 500 Cortex product licenses worldwide (200 development and 300 run-time).

Building on its "bottom-up" approach to software development tools, Cortex is currently developing products that address the areas of strategic system planning and systems analysis.

Industry Markets

The target market for Cortex's products is large corporations with DEC VAX systems installed. The company has been especially successful in marketing its products to the process manufacturing industry.

Cortex clients include DuPont, PepsiCo, Eastman Kodak, General Electric, Chemical Bank, Price Waterhouse, and Lloyds Bank.

Geographic Markets

An estimated 60% of Cortex's fiscal 1988 revenue was derived from the U.S. and 40% from international sources.

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Cortex has U.S. sales offices in Atlanta, Cleveland, Dallas, Detroit, Los Angeles, New York, San Francisco, and Washington, D.C.

Cortex's wholly owned subsidiary, Cortex Ltd., is headquartered in Bristol (England). Cortex's products are available throughout Western Europe, Australia, and Bermuda.

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Gene Nuzzo
VP, Sales
Dropped 4/81

COMPANY HIGHLIGHT

COMPUTER SERVICE, INC.
3027 Washington Avenue
Racine, WI 53405
(414) 637-8391

David Buhler, President
Private corporation
Total employees: 70
Total revenues for fiscal year end 12/31/77: $2,500,000*

THE COMPANY

- Computer Service, Inc. (CSI) was incorporated in Wisconsin during 1963. Its initial business was and continues to be providing processing services to credit unions.
- Management states that CSI is profitable. Management expects revenues to increase approximately 15% during fiscal 1978.
- Employees are distributed by function as follows:

Marketing/sales	10
Customer service	8
Programming and technical	20
General and administration	32
	70

- During the third quarter of 1977, CSI purchased 50% interest in United Computer Services International, (UCSI), an Akron, Ohio, processing services firm.

KEY PRODUCTS AND SERVICES

- One hundred percent of fiscal 1977 revenues were generated by processing services; approximately 50% by interactive remote computing and 50% by batch processing.
  - Batch services include data entry services, processing, and delivery by courier or mail reports output.
  - On-line real-time processing provides similar but more comprehensive accounting applications than the batch system.
- Specialized accounting applications provided to credit unions include share drafts, share and loan accounting, certificates of deposit, Christmas Club accounts, and a host of others.

* INPUT estimate

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- Management expects remote computing to represent an increasing share of future revenues.

- Turnkey systems for credit unions are currently under development, and management plans to have these on the market by the early part of 1979.

APPLICATIONS Approximately 95% of processing revenues are derived from industry specialty services to credit unions. Remaining revenues were from general business and utility services.

INDUSTRY MARKETS Credit unions generated 95% of fiscal 1977 revenues. The other five percent of revenues were generated by retailers.

GEOGRAPHIC MARKETS

- During fiscal 1977, CSI served credit unions in three states: Wisconsin, Indiana, and Illinois.

- Management plans to expand its area of geographic coverage by offering services in Ohio (through its joint venture with UCSI) and the East Coast.

- Branch offices are located in Racine, Wisconsin; Milwaukee, Wisconsin; and Tampa, Florida.

COMPUTER HARDWARE AND SOFTWARE

- The following mainframes are used to provide processing services:
  - Two Burroughs 6700 CPUs which run under DMS2 provide on-line services.
  - Three Burroughs 500 CPUs, running under a CSI-developed operating system, provide batch services.
- One Burroughs 2700 serves as a peripheral controller.

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acquired by McAuto (1983)

Suppose to be one of the largest supplies of RCS to telephone cos. about $10 - 12 M 182

COMPANY HIGHLIGHT

COMPUTER SHARING SERVICES, INC.
Two Tamarack Square
7535 East Hampden Avenue
Suite 200
Denver, CO 80231
(303) 695-1500

Jerrol Alkema, President
Wholly Owned Subsidiary of Rio Grande Industries, Inc.
Total Employees: 260
Total Revenue, Fiscal Year End 12/31/81: $25,700,000

THE COMPANY

- Computer Sharing Services, Inc. (CSS) was founded in 1967 to provide scientific and engineering processing services. CSS now offers remote computing and professional services to over 600 clients, primarily in the financial, investment banking, lighting design, and telecommunications industries.

  - CSS is a wholly owned subsidiary of Rio Grande Industries, Inc., a railroad and trucking operations firm which generated $388.3 million in 1981 revenue.

- CSS revenue grew 28% in 1981 to $25.7 million from $20.1 million in 1980. Operating income increased 2% to $9.5 million from $9.3 million during the same period. A four-year financial summary follows:

COMPUTER SHARING SERVICES, INC.
FOUR-YEAR FINANCIAL SUMMARY
($ thousands)

ITEM \ FISCAL YEAR	1981	1980	1979	1978
Revenue	$25,700	$20,136	$14,101	$ 6,362
. Percent increase from previous year	28%	43%	122%	N/A
Income before taxes and extraordinary item	$11,176	$10,357	$ 8,440	$ 2,662
. Percent increase from previous year	8%	23%	217%	N/A
Operating income	$ 9,457	$ 9,317	$ 7,939	$ 2,541
. Percent increase from previous year	2%	17%	212%	N/A

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- The increase in CSS revenue for 1981 resulted from additional services volume. Expense increases were due to costs for additional computing equipment, added employee expense, new training facilities, added offices, and research and development expenditures.

  - Management estimates that captive revenue represented less than 1% of total 1981 CSS revenue.

  - Large increases in 1979 revenue, income before taxes, and operating income were the result of a substantial growth in application use by major customers.

- National Integrated Software Services, Inc. (NISS), with eight employees, is a CSS subsidiary providing professional services from the Denver headquarters.

- CSS's primary competitors include GEISCO, Tymshare, and National CSS.

KEY PRODUCTS AND SERVICES

- CSS derived virtually 100% of its 1981 revenue from remote computing services. Approximately 70% of CSS's processing is interactive and 30% is remote batch. Less than 1% of revenue was derived from professional services.

- The company offers over 1,000 programs in its applications library. Specialized network applications include corporate modeling, mining, energy and lighting design, bond analysis, and telecommunications. A listing of major CSS network applications is contained in the exhibit.

- NISS, CSS's professional services subsidiary, provides contract programming and is currently developing software packages for personal computers.

  - The products will include business management and financial analysis applications, and a data manager. Designed to run on the IBM Personal Computer, Radio Shack TRS-80, and Apple processors, the packages are expected to be introduced in July 1982.

INDUSTRY MARKETS

- CSS's major clients are telephone companies, utilities, investment bankers, engineers, and architects. Financial forecasting applications are used primarily by Fortune 1000 companies.

GEOGRAPHIC MARKETS

- One hundred percent of CSS revenue is derived from across the U.S.

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EXHIBIT

CSS NETWORK PROFILE

APPLICATION AREA/PRODUCT NAME
• OPERATING ENVIRONMENT – HONEYWELL DPS, DTSS – TANDEM NONSTOP 1, GUARDIAN
• PROGRAMMING LANGUAGES SUPPORTED – BASIC – FORTRAN – COBOL – APL – ALGOL – LISP – MIX – PL/I – DXPL – SNOBOL – DYNAMO – CPS – GMAP
• DATA MANAGEMENT SOFTWARE – FASTPATH – EASY INFO – HIMAX II – CSS-DMS
• BANKING/FINANCIAL – FINANCIAL REPORTING SYSTEM (FRS) – REPORTING AND PLANNING SERVICE (RAPS) – PORTFOLIO ANALYSIS – EMPIRE – CRITERION – INTERACTIVE FORECASTING SYSTEM (IFS) – BOND (DEBT MANAGEMENT) – HEALTH (HEALTHCARE FACILITIES FINANCING) – SAVINGS AND LOAN SYSTEM – MUNICIPAL BOND ADVANCE REFUNDING
• ENERGY – FCHART – TRNSYS – DOE 2.1

APPLICATION AREA/PRODUCT NAME
• MINING ENGINEERING – GEOPLOT – GEOYIELD – GEOVENT
• LIGHTING ENGINEERING/DESIGN – LUMEN II – TARGET – ENVIRON – RWAY – AP-2 – COMPARE – ECON – SPACING – POLE – PHOTOMETRIC DATABASE (PDB) – SITE-LITE – FLUX – LUM – LECAM – STREET SHOW – STREET REPORT – DESIGN – PLANE – ENERGY
• OTHER APPLICATIONS FOR: – GRAPHICS – STATISTICS (STATPAC) – NUMERICAL ANALYSIS – SOCIAL SCIENCES – MATHEMATICS – GOVERNMENT – ECONOMICS – ENGINEERING – TEXT PROCESSING – COMPUTER-AIDED DESIGN – ELECTRICAL DISTRIBUTION SYSTEMS ANALYSIS (EDSA) – TELECOMMUNICATIONS

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- CSS branch offices are located in Atlanta, Chicago, North Hollywood, Parsippany (NJ), New York, Scottsdale (AZ), Oakland (CA), Arlington (VA), and Bridgeton (MO).

COMPUTER HARDWARE AND SOFTWARE

- CSS operates the following equipment at its Denver data center:
  - 4 Honeywell DPSs, running under DTSS.
  - 1 Tandem NonStop I, running under Guardian.
- The network is accessed via leased and WATS lines, Telenet, and Tymnet. Three hundred U.S. cities have local dial-up access to the network.

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COMPANY HIGHLIGHT

COMPUTER SHARING SERVICES
2498 West Second Ave.
Denver, CO 80223
(303) 934-2381

Jerrol Alkema, President
Wholly Owned Subsidiary
of Rio Grande Industries, Inc.
Total Employees: 150
Total Revenues, Fiscal Year End
12/31/79: over $10 million

THE COMPANY

- Computer Sharing Services (CSS) was founded in 1967 to provide scientific and engineering processing services. It is still a remote processing service bureau, but now provides business, data base management and financial applications.

- CSS had revenues of over $10 million in 1979. Rio Grande Industries reported CSS's revenues doubled in 1979, while net profit tripled that of 1978.

- All of CSS's revenues are derived from commercial clients.

- CSS has approximately 500 clients for whom it provides processing services. The company's main competitors include GEIS, Tymshare and National CSS.

- There are 150 CSS employees, divided as follows:

Marketing/sales	80
Software services/customer support	25
Computer operations	30
General and administrative	15
	150

- CSS has one subsidiary operation, National Integrated Software Services, Inc. (NISS). The ten NISS employees provide professional services from the Denver headquarters.

KEY PRODUCTS AND SERVICES

- One hundred percent of CSS's revenues are derived from remote computing services. Approximately 70% of CSS's processing is interactive and 30% is remote batch.

- CSS management considers its network specialties to be financial forecasting, investment banking, mining, energy and lighting design applications, and data base management.

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- A chart of the major CSS network applications is contained in Exhibit A. The company offers over a thousand programs in its applications library.

- CSS has developed proprietary applications, one of which it licenses for in-house use (ISAM DMS).

- NISS, CSS's professional services subsidiary, develops software, both on a contract basis and for lease.

INDUSTRY MARKETS CSS's major clients are telephone companies, utilities and investment bankers. Its financial forecasting applications are largely used by Fortune 1000 companies.

GEOGRAPHIC MARKETS CSS has offices in New York City, Parsippany (NJ), Washington (DC), Atlanta, Chicago, Phoenix, San Francisco and Los Angeles. Its headquarters and data center are in Denver.

COMPUTER HARDWARE AND SOFTWARE

- CSS operates four Honeywell DPS systems at its Denver data center. The Dartmouth Time Sharing System (DTSS) is used as the operating software.

- Its network can be accessed by leased and WATS lines, GTE-Telenet and Tymnet.

- Three hundred cities in the U.S. have local dial-up access to the CSS network.

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EXHIBIT A

CSS
NETWORK PROFILE

APPLICATION AREA/PRODUCT NAME	APPLICATION AREA/PRODUCT NAME
• OPERATING ENVIRONMENT – HONEYWELL DPS, DTSS • PROGRAMMING LANGUAGES SUPPORTED – BASIC – FORTRAN – COBOL – APL – ALGOL – LISP – MIX – PL/I – DXPL – SNOBOL – DYNAMO – CPS – GMAP • DATA MANAGEMENT SOFTWARE – FASTPATH – EASY INFO	• FINANCIAL APPLICATIONS/TOOLS – FINANCIAL REPORTING SYSTEM (FRS) – REPORTING AND PLANNING SERVICE (RAPS) – BOND (DEBT MANAGEMENT) – PORTFOLIO ANALYSIS • OTHER APPLICATIONS FOR: – GRAPHICS – STATISTICS – NUMERICAL ANALYSIS – SOCIAL SCIENCES – MATHEMATICS – GOVERNMENT – ECONOMICS – ENGINEERING – TEXT PROCESSING

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Purchased by Nixdorf

COMPANY HIGHLIGHT

THE COMPUTER SOFTWARE COMPANY
6517 Everglades Drive
Richmond, VA 23225
(804) 276-9200

Jerry A. Enfield, President
Private company, owned by employees
Total employees: 65
Total revenues fiscal year end
3/31/78: $3,000,000

THE COMPANY

- The Computer Software Company (TCSC) was formed in 1973 and provides systems software for IBM System/360 and 370 users and plug compatible CPU's such as Amdahl, Omega, Itel's Advanced Systems, etc. The products are in three main areas:

  - Operating systems.
  - On-line systems.
  - Data base management systems.

- Revenues have increased approximately 25% per year since fiscal 1976 from $2 million to $3 million in fiscal 1978. Management projects fiscal 1979 revenues will reach $4 million, a 33% increase over fiscal 1978 revenues.

  - Management states TCSC has been profitable every year with the exception of the first year of its formation in 1973.
  - Approximately 35% of the company's revenues are reinvested in development of new products or enhancements to the current product line.

- TCSC has made the important transition from a single product company to a multi-product company and is in the process of expanding its base from System/360 to System/370 oriented software.

KEY PRODUCTS AND SERVICES

- TCSC derives 80-85% of its revenue from the leasing of its products, the remainder from software sales.

- TCSC's major software products are: EDOS, EDOS/VS, DATACOM/DB, and PDMS.

- EDOS, TCSC's initial product, is an extension to the IBM Disk Operating System (DOS) for the System/360. EDOS is currently being used by over 500 System/360 installations throughout the world.

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  - TCSC has also provided service to the Computer Lessors Association (CLA) for technical assistance and continuing maintenance of DOS since February, 1974, when IBM dropped DOS support.
  - In June, 1978, TCSC moved into the System/370 marketplace with the introduction of EDOS/VS which is an enhanced version of DOS/VS Release 34. EDOS/VS will also operate on a System/360.
  - Initially, TCSC relied heavily on its close relationship with the CLA to generate sales leads for EDOS. Although the close relationship with the CLA continues, TCSC has established its own marketing sales force throughout the world.

- In 1976, TCSC expanded its product base with an inverted file structure data base management system: TCSC DATACOM/DB.

- In 1977, the product base was again expanded with the announcement of an on-line programming and development maintenance system: PDMS (Program Development and Maintenance System). PDMS contains its own TP monitor, thus eliminating the need for monitors such as CICS.

APPLICATIONS All of TCSC's products are systems oriented.

INDUSTRY MARKETS TCSC's customers are fairly evenly divided among the general industry sectors.

GEOGRAPHIC MARKETS

- The company markets its own products with its own employees in the United States, Australia, and Europe.

- The 26 full-time salesmen are located in:

  - Richmond, VA
  - Dallas, TX
  - Los Angeles, CA
  - Minneapolis, MN
  - Chicago, IL
  - London, England
  - Zurich, Switzerland
  - Sydney, Australia

COMPUTER HARDWARE AND SOFTWARE The company has an IBM System/360-30 and System 360-40 on-site for product development and support.

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(Jack Keen)

Tom Steel EVP

COMPANY HIGHLIGHT

THE COMPUTER SOFTWARE COMPANY
6517 Everglades Drive
Richmond, Virginia 23225
(804) 276-9200

Jerry A. Enfield, President
Private company, owned by employees
Computer services employees: 38
Revenues: fiscal year end 3/76:
$2,000,000

COMPANY BACKGROUND:

- The Computer Software Company (TCSC) provides software products for improving the operational productivity of IBM DOS and DOS/VS computers.

- The original company was organized in 1969 as The Computer Company and was active in data services. In 1973, two of the founders decided to specialize exclusively in systems software products, left The Computer Company, and formed the current company.

OVERALL ASSESSMENT:

- TCSC has implemented an innovative product and marketing strategy. Ninety percent of TCSC's 400 customers are IBM 360 users. The company has developed a close symbiotic relationship with the Computer Leasors Association (CLA). TCSC helps keep 360 computers viable (a) by supporting DOS 360 as a service after IBM dropped support, and (b) by offering EDOS as a way for DOS users to postpone upgrades to 370 machines.

- Historically TCSC's marketing strategy has been to (a) rely on CLA salesmen to generate leads, (b) use ex-systems programmers as TCSC salesmen in order to establish close rapport with the prospect's systems programmers, and (c) make the product easy to buy with small monthly rentals and 30 day cancellable leases.

- The company is currently profitable, projects $3 million in revenues for FY 77, and would like to eventually grow into a $10 million organization. TCSC feels that much opportunity exists for marketing products to users of the second most recent generation of computers and that this strategy can potentially continue indefinitely. Management recognizes the need to branch out beyond its single product. Towards this end the company is actively developing a DOS/VS version of EDOS for old Model 370 machines and has introduced three new products in 1976 (see below).

- The next 18 months will be important and will indicate if TCSC has, in fact, developed a multi-product business formula for continued growth and success. There is a good possibility it has.

KEY PRODUCTS AND SERVICES:

- TCSC's major software product is the Extended Disk Operating System (EDOS): a group of system enhancements which improve the operational characteristics of IBM's 360 and 370 Disk Operating System (DOS). EDOS has been sold over 450 times since its introduction in 1972. It is currently priced at $225 per month and up.

- TCSC's new software products include:

  - DATACOM/DB for EDOS: an inverted file data base management system. TCSC has acquired exclusive EDOS market rights for DATACOM/DB from the Computer Information Management (CIM) group of Insyte Corporation. Ten copies of the EDOS version have been sold since its introduction this year, at prices of $600 per month and up.

  - Program Development and Maintenance System (PDMS): a library management system priced at $230 per month and up. The system was introduced in 1976 and thus far 20 copies have been sold.

  - Data Entry Control System (DECS): an online data entry and preparation system also for DOS and DOS/VS users. Since its introduction in 1976, 10 systems have been installed.

APPLICATIONS: All of TCSC's products are systems oriented.

INDUSTRY MARKETS: TCSC's customers are fairly evenly divided among the general industry sectors.

GEOGRAPHIC MARKETS: The company markets its products with its own employees in the U.S. and in Australia, and has a Swiss agent. The equivalent of 11 full-time salesmen are located at offices in:

Cincinnati, Ohio
Dallas, Texas
Los Angeles, California
Minneapolis, Minnesota
Richmond, Virginia
San Francisco, California
Sidney, Australia

COMPUTER HARDWARE AND SOFTWARE: The company has an IBM 360/30 and 360/40 on-site for product development and support.

Dropped 1/81

COMPANY HIGHLIGHT

COMPUTER SYNERGY, INC.
1939 Harrison Street
Oakland, CA 94612
(415) 444-3434

Thomas J. Culligan, President
Private
Total employees: 35
Total revenues fiscal year end 6/30/78: $1,300,000
Computer services revenues: $800,000*

THE COMPANY

- Computer Synergy, Inc. (CSI) was incorporated in California in 1969 to provide turnkey systems. Today CSI still provides turnkey systems to hospitals and commercial organizations for administrative and control applications.
  - CSI purchases DEC minicomputers for the turnkey systems on an OEM basis.
  - Approximately 40% of fiscal 1978 revenue is derived from sales of these DEC minicomputers. These revenues are counted as non-computer services revenues.
- Total revenues for fiscal 1979 are expected to exceed $2 million, an increase of approximately 54% over fiscal 1978 revenues of $1.3 million.
- Most of CSI's employees are concentrated in the software service/customer support function, as reflected in the distribution below:

Marketing/sales	2
Software services/customer support	29
Administrative and general	4
	35 people

KEY PRODUCTS AND SERVICES

- Hospital systems generated approximately 80% of CSI's fiscal 1978 revenues and other services approximately 20%.
  - Turnkey systems are provided by both the Hospital Division and the Small Business Division. Management expects turnkey systems installation to double during fiscal 1979 and to again increase substantially during fiscal 1980.
  - Professional services, performed by the Consulting Division primarily for turnkey systems clients, generate minimal revenues.

*INPUT estimate

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- The turnkey systems installed by the Hospital Division generate approximately 80% of turnkey revenues. This system is CSI's Hospital Administrative Management System, a software package with three modules: patient accounting and hospital financial and control systems. These modules include:

  - Patient accounting system
    - Patient billing
    - Accounts receivable
    - Revenue management
    - Census
  - Hospital financial system
    - General ledger
    - Payroll/personnel
    - Accounts payable
    - Cost allocation
    - Financial reports
  - Hospital control system
    - Admitting and census
    - Outpatient registration
    - Bed control
    - Medical record index
    - Order entry

- The systems installed by CSI's Small Business Division generate about 20% of turnkey revenues and are marketed to businesses with annual sales ranging between $500,000 and $12,000,000. These DEC minicomputer-based turnkey systems include the following basic software:

  - Billing
  - Accounts payable
  - Accounts receivable
  - Inventory control
  - General ledger

- The Consulting Division assists turnkey systems users in implementing their systems and training personnel, conducts feasibility studies, and develops software.

  - Individual projects have included:
    - Short and long range data processing planning
    - Detailed technical/economic feasibility studies
    - Vendor analysis, selection, and contract negotiations
    - Systems design, programming, and implementation
    - Establishment of standards and operating procedures
    - Post implementation systems audits

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- Disclosure Act Reporting Service (DARS) was developed by the Consulting Division to help users cut accounting costs and time. DARS collects data, performs computations, and generates reports mandated by the California Health Facilities Disclosure Act.

- Occasionally, CSI does advertise some software packages, such as the Hospital Control System. However, the sale of its software on a product basis is an insignificant source of revenue. The majority of software package revenues are derived from enhancements to software on installed turnkey systems.

APPLICATIONS Specialty applications are provided to hospitals, and general business applications are supplied to users in other industries.

INDUSTRY MARKETS Eighty percent of fiscal 1978 revenues were generated by sale of systems to the hospital industry. The balance of revenues were derived from a wide cross section of other industries.

GEOGRAPHIC MARKETS The majority of CSI revenues are concentrated in California, particularly the San Francisco Bay area (Pacific states). The balance of revenues are generated mostly by hospitals located in the western and midwestern areas of the U.S. (West North Central, West South Central, and mountain states regions.)

COMPUTER HARDWARE AND SOFTWARE CSI uses one DEC PDP/11 running under RSTS for in-house testing purposes only.

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COMPANY HIGHLIGHT

COMPUTER SYSTEMS ENGINEERING, INC.
16 Second Avenue
Burlington, MA 01803
(617) 272-4348

Norman Mackinnon, President
Private Corporation
Total Employees: 75
Total Revenue, Fiscal Year End 12/31/80: $4,000,000*
Computer Services Revenue: $1,600,000*

PRINCIPAL BUSINESS Computer Systems Engineering, Inc. (CSE), founded in 1967, markets business application and customized turnkey systems, licenses software products, and manufactures special purpose industrial electronic devices.

SOURCES OF REVENUE

- 60% Hardware.
- 30% Turnkey systems.
- 10% Software products.

KEY PRODUCTS AND SERVICES

- CSE markets the CSE 500 turnkey system primarily to discrete manufacturing and wholesale distribution companies through its Business Systems Division. The system is programmed in BASIC and uses Data General NOVA or ECLIPSE minicomputers running under DOS, RDOS, or AOS. With approximately 20 installations, the system ranges in price from $40,000 to $120,000. Applications available include:

  - Accounts Payable.
  - Accounts Receivable.
  - Bill of Material.
  - Fixed Asset Accounting.
  - General Ledger/Financial Statements.
  - Inventory Control.
  - Material Requirements Planning.
  - Order Entry/Invoicing/Sales Analysis.
  - Payroll.
  - Physical Inventory.
  - Project Management System.
  - Purchasing.
  - Report Generator and Word Processing.

- CSE also customizes packaged turnkey systems for clients. Examples of previously developed systems include:

*INPUT estimate

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- . Street traffic control systems.
- . Attendance and voting systems.
- . Radar control systems.
- . Process and machine control systems.
- . Large parking garage revenue control systems.

- All CSE turnkey applications are available for licensing as separate software packages running on Data General NOVA or ECLIPSE minicomputers. With approximately 24 packages installed, prices range from $12,000 to $30,000.

- CSE's Industrial Products Division designs, manufactures, and services specialized electronic equipment, including:

  - . Portable data collectors, such as inventory evaluation calculators and bar code readers.
  - . Digital communication equipment.
  - . Magnetic card readers.

INDUSTRY MARKETS

- CSE's turnkey and software product revenue is derived from the following industry sectors:

  - . 70% Discrete manufacturing.
  - . 28% Wholesale distribution.
  - . 2% Retail distribution.

- A small percent of customized turnkey systems have been designed for government clients.

GEOGRAPHIC MARKETS

- 90% U.S. (primarily east of the Mississippi River).
- 10% Canadian.

  - . CSE is gradually phasing out its Canadian business.

COMPUTER HARDWARE AND SOFTWARE

- CSE maintains the following equipment:

  - . 1 Data General NOVA 4, DOS, RDOS.
  - . 2 Data General NOVA 3s, DOS, RDOS.
  - . 1 Data General ECLIPSE, DOS, RDOS.
  - . 2 DEC PDP-11s.

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INPUT

Vendor Profile

A Publication from INPUT's Vendor Analysis Program – U.S.

September 1996

Computer Task Group, Inc.

Chairman & CEO: Gale S. Fitzgerald
800 Delaware Avenue
Buffalo, NY 14209-2094
Phone: (716) 882-8000
Fax: (716) 887-7246
Internet: http://www.ctg.com

Status:	Public
Employees:	5,014 (12/95)
Revenue:	$339,407,000
Fiscal Year End:	12/31/95

Key Points

- Computer Task Group (CTG), celebrating its 30 years of experience in the information technology (IT) industry, is a leading provider of software development, IT consulting, and other professional services.
- In June 1996, CTG's Winston-Salem (NC) office received ISO 9001 certification.
- In August 1995, CTG announced its first public World Wide Web pages. The internally developed pages include technical and industry-specific articles by CTG experts, and also serves as a sourcing pipeline for recruiting IT professionals.
- In August 1995, CTG was named one of only eight IBM authorized providers of national technical services.

Company Description

Founded in 1966, CTG provides a range of IT professional services to more than 750 parent company clients representing 1,800 divisions/locations worldwide.

The company's focus is on Professional Software Services and Information Technology Consulting. Services available through CTG include contract programming, business consulting, systems development and integration, and managed support.

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During 1995, CTG repurchased approximately 298,000 shares of common stock for $4.3 million. In July 1996, the company authorized the repurchase of 700,000 shares for treasury, adding to the one million shares of common stock previously authorized in 1994.

In May 1989, IBM made an equity investment in CTG, acquiring approximately 1.5 million shares of CTG preferred stock.

- As of December 31, 1994, IBM had sold all of CTG's shares, either back to CTG or on the open market.

- IBM is CTG's largest customer, with CTG providing services to approximately 50 IBM locations.

Organization and Structure

During 1993, CTG redefined its regional structure, redrew territorial boundaries, and consolidated support functions such as sourcing, finance, and administration to help delivery teams capture greater market share and bring decision-making closer to the client.

CTG has 55 offices in five countries, and provides services worldwide through a network of more than 100 geographically dispersed delivery teams.

CTG's Professional Software Services is organized in six regions with offices as follows:

- *Northeast* Region—headquartered in Syracuse (NY), with offices in Albany, Buffalo, and Rochester (NY); Boston (MA); Hartford (CT); Hudson Valley; New York City/New Jersey; and Toronto (Canada)

- *Mid-Atlantic Region*—headquartered in Raleigh (NC), with offices in Baltimore (MD); Charlotte and Winston-Salem (NC); Delaware Valley; Greenville (SC); Central (PA); and Washington D.C.

- *South Region*—headquartered in Raleigh (NC), with offices in Atlanta (GA); Jacksonville/Orlando, Melbourne, Ft. Lauderdale, and Tampa (FL); and Memphis and Nashville (TN)

- *Midwest Region*—headquartered in Merrillville (IN), with offices in Chicago (IL); Cincinnati, Cleveland, and Columbus (OH); Grand Rapids and Detroit (MI); Ft. Wayne and Indianapolis (IN); Milwaukee (WI); and Pittsburgh (PA)

- *Central Region*—headquartered in St. Louis (MO), with offices in Dallas, Austin, and Houston (TX); Denver (CO); Des Moines (IA); Kansas City and Omaha (NE); and St. Louis (MO)

- *West Region*—headquartered in San Francisco (CA), with offices in Anchorage (AK); Phoenix (AZ); Portland (OR); Salt Lake City (UT); San Jose (CA); and Seattle (WA)

CTG's Information Technology Consulting line of business, which provides offerings in Business Consulting, Development and Integration, and Managed Support through CTG's network of 55+ locations, is headquartered in Buffalo (NY).

Outside the U.S., CTG has four operating subsidiaries:

- Computer Task Group of Canada, Inc., based in Toronto (Ontario)

- Computer Task Group (U.K.) Ltd., with offices in Nottingham and Reading (England)

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- Computer Task Group Nederland B.V. (the Netherlands), which includes the European headquarters
- Computer Task Group Belgium N.V. (Belgium)

Company Strategy

CTG's long-term goal is to improve value for its clients through two strategies:

- Developing "Key Client" relationships
  - Key relationships are those with companies that view CTG as a strategic partner.
  - At the beginning of 1996, CTG had approximately 150 clients that it viewed as "Key".
- Attracting and retaining the best information technology professionals. CTG believes that its greatest asset is its people.
  - CTG spent $4 million in 1995 on employee training programs, an average of five days of training per CTG employee.
  - CTG spent more than $475,000 in 1995 on tuition reimbursement.

CTG's restructuring was initiated in late 1993 to address the following issues:

- Improving responsiveness and sales presence
- Building a dynamic pipeline of talent
- Establishing a competitive cost structure
- Reducing overhead costs, moving as much as possible to variable costs
- Allowing decision-making to occur quickly and responsibly, and as close to the buyer as possible
- Divesting non-strategic businesses

CTG's business strategy is based upon the concept of being cost competitive while being responsive in supplying qualified staff to work on client engagements.

- CTG's services are now sold and delivered on a local level through its network of geographically dispersed delivery teams made up of sales managers, resource managers, business consultants, project managers, consultants, and software engineers.
- In order to improve its responsiveness to client requirements, CTG reorganized its hiring processes. The company now has a staff of approximately 90 (sourcing) recruiting specialists located in five regional Sourcing Centers.
- In addition, the company's network of offices gives it wide geographic coverage with the capability of servicing large companies with multiple locations.

Financials

CTG's 1995 total revenue reached $339.4 million, a 13% increase over 1994 revenue of $301.6 million. Net income was $12.0 million, a125% increase over net income of $4.8 million for 1994.

- Net income includes a tax benefit of $3.2 million related to losses associated with European operations in the third quarter of 1995. Excluding effects of the tax benefit, net income for 1995 was $ 7.6 million, a 58% increase over the previous year.
- A five-year financial summary appears on the following page.

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Computer Task Group, Inc.
Five-Year Financial Summary
($ Millions, except per-share data)

	Fiscal Year				
Item	1995	1994	1993	1992	1991
Revenue	$339.4	$301.6	$295.5	$302.7	$285.1
• Percent change from previous year	13%	2%	(2%)	6%	17%
Income (loss) before taxes	$12.0	$8.1	$(30.7)	$10.1	$1.6
• Percent change from previous year	48%	(b) 126%	(c) (404%	531%	(87%)
Net income (loss)	$10.8	$4.8	$(27.7)	$5.6	$0.9
• Percent change from previous year	(a) 125%	117%	(595%)	529%	(88%)
Earnings (loss) per share	$1.23	$0.52	$(2.62)	$0.56	$0.10
• Percent change from previous year	(a) 137%	120%	(568%)	460%	(87%)

(a) Includes a non-recurring tax benefit of $3.2 million ($0.36 per share) related to losses associated with European operations during the third quarter of 1995..

(b) Includes an $11.3 million gain from the sale of various assets.

(c) Includes $12.8 million in restructuring costs and $21.3 million in impairment costs.

Management attributes revenue increases to the following:

- A 12% increase in revenue for North American operations
- A 21% increase in European revenue
- An increase in billable hours as a result of 13% increase in billable staff at the end of 1995 over the prior year
- A contract awarded by IBM in the third quarter covering approximately 60% of the total services provided to IBM
- An increase of $54.9 million (19%) from continuing operations, despite the sale of several businesses in 1994 (accounting for $17.1 million in 1994 revenue)

CTG's 1995 revenue from continuing operations was $339.4 million, a 19% increase over comparable 1994 revenue of $284.4 million.

In 1996, CTG is expecting a 10% growth in revenue.

Interim Results

Revenue for the six months ending June 30, 1996 reached $181.3 million, a 9% increase over revenue of $166.8 million for the same period in 1995. Net income was $4.9 million, a 39% increase over net income of nearly $3.5 million for the same period a year ago.

Revenue growth was attributed to:

- Planned incremental improvement in margins

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- Success of the company's strategy to form strong IT partnerships with its Key clients.

Revenue Analysis by Product/Service

The majority of CTG's 1995 revenue was derived from professional software services (contract programming). The remainder of revenue was derived from consulting, managed support, and implementation support services.

Approximately 87% of revenue was from time-and-materials contracts and 13% from fixed-price contracts in 1995, compared to 92% from time-and-materials and 8% from fixed-price contracts in 1994.

CTG's typical customer is a Fortune 500-size organization with large, complex information and data processing requirements. The company also serves approximately 35% of the Fortune 100 companies.

A three-year source of revenue summary follows:

Computer Task Group, Inc.
Three-Year Source of Revenue Summary
($ Millions)

	Fiscal Year		
	1995	1994	1993
Item	Percent of Total	Percent of Total	Percent of Total
Manufacturing	23%	30%	58%
Services	51%	25%	22%
Banking and finance	10%	8%	8%
Wholesale/retail	6%	5%	----
Other	10%	32%	12%
Total	100%	100%	100%

IBM accounted for $80 million (24%) of CTG's revenue in 1995, compared to $68 million (23%) in 1994, and $80 million (27%) in 1993.

Geographic Markets

Approximately 90% of CTG's 1995 revenue was derived from the U.S. and 10% from Europe.

A three-year source of revenue summary is shown on the following page.

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Computer Task Group, Inc.
Three-Year Geographic Source of Revenue Summary
($ Millions)

	Fiscal Year					
	1995		1994		1993	
Geographic Market	Revenue $	Percent of Total	Revenue $	Percent of Total	Revenue $	Percent of Total
North America	$306.2	90%	$274.1	91%	$266.2	90%
Europe	33.2	10%	27.4	9%	29.3	10%
Total	339.4	100%	$301.6	100%	$295.5	100%

Divestitures

During 1994, CTG divested three businesses that did not fit in with the long-term goals of the company.

- In July 1994, CTG sold its Profimatics, Inc. subsidiary, including the 67% interest which Profimatics held in its German subsidiary (Profimatics Europe, GmbH) to Honeywell, Inc. for $17 million. Profimatics offers applications software products for petrochemical plants and oil refining.
- In July 1994, CTG sold the hardware portion of its communications business (Network Systems Integration).
- During 1994, CTG also sold its 16% interest in SerCon to IBM Germany. SerCon was a joint venture with IBM Germany to provide support to IBM's Distributors Management Accounting System.

Employees

As of December 31, 1995, CTG had 5,014 employees, including 4,402 professional technical staff, compared to a total of 4,497 employees in 1994, and 3,738 in 1993.

Key Products and Services

CTG provides a range of services, from flexible staffing provided on a per diem basis, to managing multi-million dollar technology projects. The majority of CTG's services are provided on-site, at the client's facilities.

CTG currently provides its professional services in two interrelated areas—Professional Software Services and Information Technology Consulting.

Professional Software Services

CTG provides IT skills in response to clients' immediate or long-term needs. Once called flexible staffing or contract services, this is the business upon which CTG was founded.

In Professional Software Services, customers are looking for IT skills on a temporary basis and want a quick and accurate response.

The scope of professional services work performed by CTG ranges from specific, minor tasks of short duration to large, complex tasks that require multiple systems engineers for a long period of time. Fees are generally on a time-and-materials basis.

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Information Technology Consulting

CTG's IT consulting provides IT solutions, assuming responsibility for defined deliverables or service levels, and focused on three major offerings aligned to the business solution life cycle (plan, design, maintain)—Business Consulting, Development & Integration, and Managed Support. Fees are generally on a time-and-materials basis.

Business Consulting focuses on the planning phase of the IT life cycle. CTG consultants help a customer develop the plan to reengineer its business processes, assess its technology needs, and choose the appropriate technology.

Development & Integration supports the implementation phase of the IT life cycle, including software package implementation and client/server and other application development.

Managed Support addresses the maintenance segment of the IT life cycle. It encompasses service offerings such as help desk (managing or staffing client help desks for systems or overall IT support), systems operations and network support (running or maintaining a customer's systems or IT function), and application maintenance outsourcing (maintaining a company's systems).

Customers are served by local teams, comprising Sales Managers, Business Consultants, Resource Managers, and Project Managers who work together—the first two focus on identifying an engagement, the third focuses on finding appropriate, high quality professionals for an engagement, and the fourth manages successful project completion.

- Supporting these local teams are regional recruiting (sourcing) specialists backed by SmartSource™, a national electronic database of professional computer consultants and programmers to improve effectiveness at locating qualified IT candidates.

- Project Managers are responsible for profitability, client satisfaction, and risk management in the project delivery of IT Consulting offerings.

CTG has special expertise in the following areas:

- Client/server
- Databases
- Imaging systems
- Vertical industries—health care, metals, logistics, distribution, pharmaceuticals
- Manufacturing systems

Clients

CTG's customer base is large and diverse, including approximately 900 clients. At the beginning of 1996, CTG had 150 clients that it viewed as "Key". Some of its Key clients include:

- Milliken & Company, one of the world's largest privately held textile companies, contracts CTG as a primary supplier of IT services, and has done so for the last 12 years. CTG provides a range of services from systems development for manufacturing to business systems and strategic business consulting in computer integrated manufacturing. In February 1996, CTG was awarded Milliken's first Distinguished Supplier award for IT services.

- IBM is CTG's largest client. CTG fulfills all of IBM's needs through its National Delivery Team, which functions like a region, but focuses solely on filling skill requirements for IBM. The National Delivery Team also manages CTG's alliances with MCI and Hewlett-Packard.

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In August 1995, CTG was named one of only eight IBM authorized providers of national technical services.

- CTG is involved in a three-year warehouse and manufacturing operation reengineering project for Calvin Klein Cosmetics Company. CTG has designed and implemented a warehouse management system that combines real-time inventory control, radio frequency functions, and high speed automation, including conveyors, sorts, bar code scanners, and a weigh in motion scale. In July 1996, CTG completed Phase II of the project.

- In August 1995, CTG entered into a four-year, multi-million dollar outsourcing contract with Agway Inc., a cooperative that provides agriculture-related services and products. CTG has assumed the responsibility for the maintenance of Agway's computer applications and the management of application programmers.

Marketing and Sales

CTG markets its services through a direct sales staff.

Marketing efforts span all strata of the organization.

- On the corporate and regional level, management performs strategic, tactical, and operational sales planning to assess industry and customer needs and target markets.

- On a local level, CTG markets Professional Software Services and IT Consulting Services through teams of professionals comprising Sales Managers, Resource Managers, and Business Consultants.

- The Sales Managers and Business Consultants focus on identifying engagements. Resource Managers match the appropriate professionals to the engagements.

- These local teams are supported by a force of 90 sourcing specialists located in five regional locations, who draw on a national electronic database of over 160,000 professional computer consultants and programmers.

- During 1994, these centers started using the electronic recruiting database to screen and monitor staff who are available to work on CTG's client programming needs. SmartSource™, CTG's unique sourcing ability, combines process, artificial intelligence-based technology and recruiting staff to create a nationwide pipeline of more than 160,000 qualified IT professionals. SmartSource ensures that the professionals recommended by CTG are qualified and have the highest quality skills.

- In the first year the system was in place CTG created a qualified database of more than 100,000 candidates available for assignments. Today the system houses more than 160,000 resumes.

Sales Managers and Resource Managers are full-time employees who receive a base salary and are paid commissions based on objectives such as revenues and profitability of the business they sell. Each Sales Manager is assigned a sales quota and is paid in relationship to this quota.

CTG also uses the Internet and the World Wide Web as key components of its communications infrastructure, called CTGNet. The company uses the Internet and the Web to connect wide-spread employees, as a resource tool for recruiting, marketing, and service delivery.

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Competition

CTG's competition comes primarily from four channels:

- Internal data processing staff of CTG customers.
- Small local firms or individuals specializing in specific programming services or applications
- Hardware vendors and suppliers of packaged software systems
- Large national or international vendors, including major accounting firms that offer a range of development services

Major competitors include Keane, Andersen Consulting, EDS, DEC, CSC, Computer Horizons and Analysts International.

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COMPUTER TASK GROUP, INC.
800 Delaware Avenue
Buffalo, NY 14209
(716) 882-8000

David N. Campbell, Chairman and CEO
John P. Courtney, President
Public Corporation, NYSE
Total Employees: 3,620 (12/89)
Total Revenue, Fiscal Year End 12/31/89: $233,006,000

The Company

Computer Task Group, Inc. (CTG), founded in 1966, is one of the largest providers of computer-related consulting, systems integration, and professional services to the commercial market in the U.S. Services available through CTG include consulting, systems analysis and design, programming, software conversions, education and training, and systems operations.

In June 1989, IBM made an equity investment in CTG, acquiring approximately 1.5 million shares of CTG preferred stock for $21 million.

- In conjunction with this transaction, the two companies agreed to levels of use of CTG's systems engineers on products for IBM and its customers.
- Revenues from IBM, which were about 5% of total revenue prior to this contract, increased approximately 50% by the end of 1989.

During the second quarter of 1989, CTG closed four branches which were unprofitable and eliminated 65 overhead positions at a cost of over $1 million. Results of operations for the second and third quarters were lower than expected at which time the company announced it would undertake a major restructuring program.

- Overall during the year, CTG eliminated more than 300 positions through the consolidation of overhead functions and the sale or closing of branches. The company consolidated its field operations from 71 to 60 offices.
- The restructuring program resulted in charges to 1989 earnings of $4.2 million for losses on the closing of business units and $13.2 million for other restructuring expenses.

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- Included in the losses on closed business units were losses resulting from the sale of CTG's Amtec Systems Corporation subsidiary and the Ottawa, Ontario, Canada branch office.

- Other restructuring expenses included severances, costs related to streamlining administrative programs and benefit plans, and costs for consolidating business operations.

CTG's current strategy is to concentrate on commercial professional services, consulting services, systems integration, international opportunities, and its IBM relationship. Target markets include discrete and process manufacturing, banking and finance, insurance, and state and local government.

CTG's 1989 revenue reached $233 million, a 7% increase over 1988 revenue of $218.7 million. Net losses for 1989 were $7.8 million, compared to net income of $6.4 million for 1988. A five-year financial summary follows:

COMPUTER TASK GROUP, INC.
FIVE-YEAR FINANCIAL SUMMARY
($ millions, except per share data)

	FISCAL YEAR				
ITEM	1989	1988	1987	1986	1985
Revenue	$233.0	$218.7	$170.1	$143.4	$115.7
• Percent increase from previous year	7%	29%	19%	24%	40%
Income (loss) before taxes	$(11.6) (a)	$10.8	$8.5	$9.3	$7.4
• Percent increase (decrease) from previous year	(207%)	28%	(8%)	25%	84%
• Gross margin	--	5%	5%	6%	6%
Net income (loss)	$(7.8)	$6.4	$5.1	$5.1	$4.0
• Percent increase (decrease) from previous year	(222%)	26%	--	26%	91%
• Net margin	--	3%	3%	4%	3%
Earnings (loss) per share	$(0.88)	$0.80	$0.66	$0.68	$0.68
• Percent increase (decrease) from previous year	(210%)	21%	(3%)	--	51%

(a) Includes losses from closed businesses of $4.2 million and restructuring expenses of $13.2 million.

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Before restructuring expenses and losses on closed operations, CTG's 1989 operating income would have been $3.3 million (1.4% of revenue), compared to $10.2 million (4.7% of revenue) in 1988.

- The major reasons for the drop in margin were: unanticipated increases in employee fringe benefits, especially medical costs which increased by 60%; low margins in start-up operations together with lower overall operating margins in field operations due to lower staff use; and continued poor performance in the migration business.

Divestitures made by CTG include the following:

- As previously discussed, CTG sold its Amtec Systems subsidiary during 1989. Amtec Systems, located in Los Angeles, supported CTG's aerospace business.

- During the first quarter of 1989, CTG sold its investment in Analysts International for $4.6 million, realizing a gain of $2.1 million. CTG originally acquired a 19.13% interest in Analysts International in January 1987.

Revenue for the three months ending March 31, 1990 reached nearly $59.2 million, a 1% increase over $58.6 million for the same period a year ago. Net income was over $1.9 million, a 31% increase over $1.5 million for the same period in 1989.

As of December 31, 1989, CTG had 3,620 employees, segmented as follows:

Marketing/sales	125
Professional staff	3,075
Field management and administration	306
Corporate	114
	3,620

- CTG currently has approximately 3,800 employees throughout 60 offices and project development centers in the U.S., Canada, the U.K., and West Germany.

CTG professional services competitors include AGS Computers, Inc. (NYNEX), Computer Horizons, Keane, and the major accounting firms. Systems integration competitors include Andersen Consulting, Electronic Data Systems, DEC, and Computer Sciences Corporation.

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Key Products and Services

Approximately 87% ($203 million) of CTG's 1989 revenue was derived from its various professional services and 13% ($30 million) from commercial systems integration activities.

The scope of professional services work performed by CTG ranges from specific, minor tasks of short duration, to large complex tasks that require multiple systems engineers for a long period of time. CTG offers consultants who are experienced in an industry application or technology; total project systems integration (often on a fixed-fee basis); and per diem services.

- Typically, CTG's professional staff augments and becomes part of the client's on-site software development team on a specific application or project.

- A majority of CTG's clients are large companies with multiple locations and substantial data processing operations. CTG currently has approximately 1,400 clients worldwide, including 85 of the Fortune 100 companies.

CTG classifies its services into three areas:

- Professional Services. The company's major source of revenue is derived from this type of service. CTG staff provides programming, systems analysis and design, project management, systems operations, and other services in support of the client's data processing applications.

- Consulting. Examples of specialty areas in which CTG has experience include information engineering, data base consulting, telecommunications/network consulting, conversions, migration, and document management services.

- Commercial Systems Integration Services. These services are provided to the manufacturing and industrial markets through CTG's subsidiary, Scientific Systems Services. Services provided include management consulting; concept and applications planning studies; Control-Spec™ functional specification and scope-of-work contracts; systems architecture services, including hardware selection, systems software evaluation and selection, application software, and communications; and project implementation.

CTG provides its commercial professional services through a network of branches and field offices.

- Services are provided primarily to discrete and process manufacturing firms. CTG also has clients in banking and

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finance, distribution, insurance, medical, telecommunications, utilities, state and local government, education/services, and transportation.

- Professional services are provided to clients on a contract basis, usually on a per diem rate. Services may be performed at the client's or one of CTG's 20 project development centers located throughout its branch office network. These centers allow CTG to handle a project entirely off-site, using either CTG computers or using communications links to the client's equipment.

- As a result of IBM's equity investment in CTG, the two companies are working together in the development and delivery of application solutions and services, as well as systems operations.

  - From the date of signing in June 1989 to year end, the number of systems engineers on projects with IBM increased 43%.

  - CTG software development teams are working with IBM's Applications Solutions Division to produce new products. Manufacturing divisions such as the communications products group of IBM are also a major source of software development and documentation.

  - As a business partner with IBM, CTG provides services to IBM at the local branch level.

  - CTG will team with IBM's Systems Integration Division on a flexible staffing basis, or act as a subcontractor where IBM functions as prime contractor.

  - CTG's largest contract to date involves systems operations for the Atlanta-based Bank South data center. Teaming with IBM, CTG is running the data center's operations under a 10-year contract.

Consulting Services, closely allied with CTG's professional services business, represented approximately 7% ($16 million) of 1989 revenue.

- Services are provided through two groups as follows:

  - The National Extended Support Services (NESS) group, headquartered in Raleigh (NC), specializes in skills which

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are in peak current demand, but which may not be in consistent demand within each geographic area.

- The Strategic Technology Research and Consulting (STRC) group, headquartered in Buffalo (NY), assesses industry needs and requirements for new technologies.

- Areas of consulting include the following:

  - Telecommunications/network consulting focuses on voice and data communications and network management. Future plans include strengthening its presence as a project consultant in the telecommunications field, especially within vertical markets such as manufacturing, health care, higher education, and finance; the design of on-line customer service applications; and network design and integration.

  - Document management and documentation development services consist of providing written and on-line support materials and instructions, both for technical systems and end users.

    - CTG's Documentation Support Services Group, headquartered in Phoenix, grew 175% from 1988 to 1989 and opened new centers in Buffalo and Atlanta.

    - Services provided to the production publishing market include full project development and overload support.

    - Documentation clients include United Technologies, the State of Arizona, and IBM.

  - Data base consultants plan, design, and fine-tune client data base applications. Future strategies include establishing DB2 migration teams to assist clients to migrate to DB2 using CASE tools.

  - Migration services include migration and conversion services for clients moving from one hardware environment to another, or converting from one operation system or language to another. CTG has completed migration projects at more than 200 sites nationwide.

Scientific Systems Services (SSS), headquartered in Melbourne (FL), provides systems integration services in the manufacturing and industrial markets.

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- SSS groups include: Consulting Services, Factory Automation, Logistics and Materials Handling Automation Systems, Manufacturing Automation Systems, Manufacturing Business Applications, and Process Automation Systems.

- SSS has performed projects for North Star Steel Co. (an automated process control system), Public Service of New Mexico (a coal-fed generating plant monitoring system), Baxter Healthcare Corporation (a warehouse control system), and National Steel Corporation (a caster control system).

- In April 1989, SSS acquired exclusive U.S. marketing rights to 3100 GPC™ Greenway Protocol Converter, a UNIX-based communications and integration software platform for the factory floor developed by Kilpatrick Green Systems Engineering, Ltd. of Australia.

The CTG Institute for Technical and Management Training in Buffalo provides in-depth training for CTG staff. Some 30 technical and 20 marketing and management courses are offered. INPUT estimates that over 1,500 employees attend these classes on an annual basis.

- Formal training courses are also offered at selected national branch offices.

Industry Markets

CTG's target markets include large organizations in discrete and process manufacturing, financial services, insurance, and state and local government.

- Eighty-five of the Fortune 100 industrial companies are CTG clients.

- Sixty percent of CTG's 1989 revenue was derived from Fortune ranked companies.

During 1989, CTG's repeat business with current clients exceeded 90%.

CTG's client base is segmented approximately as follows:

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Discrete manufacturing	32%
Process manufacturing	23%
Services	16%
Banking and finance	9%
Insurance	5%
Distribution	5%
State and local government	3%
Other	7%
	100%

Geographic Markets

INPUT estimates over 95% of CTG's 1989 revenue was derived from the U.S. and the remainder was derived from international sources.

CTG has 60 offices and 20 project development centers in the U.S., Canada, the U.K., and West Germany.

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COMPUTER TASK GROUP, INC.
800 Delawore Avenue
Buffolo, NY 14209
(716) 882-8000

Dovid N. Campbell, Choirman ond CEO
John P. Courtney, President ond COO
Public Corporotion, NYSE
Total Employees: 2,500
Totol Revenue, Fiscol Year End
12/31/86: $143,366,000

THE COMPANY

- Computer Task Group, Inc. (CTG), founded in 1966, is one of the largest providers of computer-related professionol services to the commerciol morket in the U.S. CTG olso offers conversion services ond direct mail processing services.

- CTG's strotegy is to morket its professionol services primorily to lorge manufocturing/industrial outomotion, financial services, and telecommunicotions firms with lorge hardware instollotions ond doto processing operotions.

  - In terms of growth, CTG oims to open from three to five new branch offices per yeor. During 1986 the compony expanded into internationol markets with ocquisitions in Conodo ond the U.K. Over the next severol yeors CTG will continue to concentrote on its U.S. ond internotionol exponsion.

  - CTG plons to expond its speciolty services by moving into new target morkets, such as utilities ond insuronce.

  - CTG olso sees itself toking on lorger ond more complex projects in the two-to-ten million dollor range.

- Prior to Februory 26, 1987, the compony's common stock wos troded in the Notionol Over-the-Counter market. The compony's common shores ore now troded on the New York Stock Exchonge.

- CTG's 1986 revenue reached $143.4 million, o 24% increose over 1985 revenue of $115.7 million. Net income rose 26%, from $4 million in 1985 to $5.1 million in 1986. In the five-yeor finonciol summary that follows, results of oll componies ocquired by CTG (described below) ore included from their respective dotes of ocquisition.

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COMPUTER TASK GROUP, INC.
FIVE-YEAR FINANCIAL SUMMARY
($ thousands, except per share data)

ITEM \ FISCAL YEAR	1986	1985	1984	1983	1982
Revenue	$ 143,366	$ 115,711	$ 82,693	$ 53,834	$ 39,462
. Percent increase from previous year	24%	40%	54%	36%	6%
Income before taxes	$ 9,277	$ 7,447	$ 4,054	$ 2,564	$ 2,109
. Percent increase from previous year	25%	84%	58%	22%	2%
Net income	$ 5,081	$ 4,021	$ 2,108	$ 1,454	$ 1,144
. Percent increase (decrease) from previous year	26%	91%	45%	27%	(10%)
Earnings per share (a)	$ 0.68	$ 0.68	$ 0.45	$ 0.33	$ 0.21
. Percent increase (decrease) from previous year	-	51%	36%	57%	(36%)

(a) Restated to reflect a three-for-three stock split declared April 30, 1986.

- CTG management attributes increases in 1986 revenue to the following:
  - Approximately 67% ($18.6 million) of the increase in revenue was due to increases in market share in existing cities, increases in general manufacturing business (partially offset by losses in revenue in heavy manufacturing), and revenue from start-up units. CTG also experienced revenue increases in its conversion services and direct mail business.
  - The remaining 33% ($9.1 million) increase in revenue was attributed to acquisitions.
  - Revenue growth slowed from previous years due to the slower rate of growth of non-IBM data base vendors, Cullinet in particular, retarding the need for application development services.
- During 1986 CTG's margins came under pressures from several sources: client pressure to maintain or reduce prices, and high levels of unbilled professional staff time. Also acquisitions, though yielding a high return on cash invested, had lower operating margins, while being integrated, than the company's more mature operations. These pressures were offset by controls placed on Selling, General and Administrative expenses (SG&A) which were reduced as a percentage of revenue from 12.7% to 11.4%. The effective tax rate was also

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reduced from 46% to 45% due to a combination of investing in non-taxable securities and more effective tax planning.

- In 1986 earnings per share remained level with 1985's despite the increase in net earnings because of a 33% increase in shares due to the July 1985 stock offering.

- Acquisitions made by CTG include the following:

  - In January 1987 CTG reported that it had acquired 19.13% of Analysts International, Inc. for approximately $4.6 million. The shares are being held for investment purposes.

  - During 1986 CTG acquired five professional services companies for a total of $7.2 million in cash, plus certain contingent payments based on future performance.

    . Effective October 1, 1986 CTG acquired maxima Computer Management Consultants, Ltd.

      - maxima, with 50 employees and annual revenue of about $4 million, is headquartered in Ottawa and has branch offices in Toronto and Tampa (FL).

      - Founded in 1981, maxima has primarily served the federal government in Ottawa in large project work. In the Toronto metropolitan area, the company serves leading commercial, government, banking, and manufacturing companies.

      - maxima now operates as maxima/Computer Task Group Limited.

    . Effective August 1986 CTG acquired Creative Computing Company, a Cleveland professional services firm with a branch office in Columbus.

      - Creative Computing, with annual revenue of approximately $5 million, specializes in the design, development, and implementation of custom business applications in the mainframe market, primarily data base and data communications.

      - With this acquisition CTG believes it is the single largest professional services firm in the greater Cleveland and Columbus area.

    . Effective June 1986 CTG acquired Shubrooks International, Limited, a software consulting firm headquartered in Chertsey, England (U.K.) with offices in Newbury and Gloucester.

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- Shubrooks, CTG's first international acquisition, provides services primarily to manufacturing and distribution clients in the Financial Times 1000.

- Shubrooks had revenue of approximately $4 million in 1985. It now operates as Computer Task Group Limited.

• Effective April 1986 CTG acquired Quadra Systems, Inc., a computer services consulting firm headquartered in San Antonio (TX).

- Founded in 1980, Quadra provides professional services to commercial clients located in the Greater San Antonio area, particularly to manufacturing, energy, and education markets.

- Quadra had annual revenue of about $1 million.

• Effective April 1986 CTG acquired United Software Consultants, Inc., a computer services consulting firm headquartered in Chicago. United Software, founded in 1981, provides professional services to several larger institutional clients located in the Greater Chicago area.

- During 1985 CTG acquired five computer services companies for a total of $3.9 million in cash and notes payable.

• Effective September 1985 CTG acquired Documentation Resources, Inc., a professional services firm headquartered in Phoenix, with a branch office in Dallas. The company develops and documents large custom software systems for major companies in Phoenix and Dallas.

• Effective September 1985, CTG acquired Data Force, Inc. a professional services firm headquartered in Seattle (WA) with a branch office in Portland (OR). The company develops large custom software systems for Fortune 500 companies in Seattle and Portland, particularly within the manufacturing and banking industries.

• Effective September 1985 CTG also acquired Central Computer Systems, Inc., a professional services firm headquartered in San Francisco (CA). The company services major banking institutions in San Francisco.

• Effective February 1985 CTG acquired Dataware, Inc. of Buffalo (NY). Dataware, a provider of conversion software services since 1968, now operates as a wholly owned subsidiary of CTG and has relocated to CTG's Technology Center in Orchard Park (NY).

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- Effective January 1985 CTG acquired Berger, Vernay & Company, a professional services firm headquartered in Houston (TX). The firm serves the Fortune 500 marketplace in Houston, particularly the energy industry.

- Revenue for the six months ending June 30, 1987 reached $80.5 million, an 18% increase over $68.2 million for the same period in 1986. Net income for the period decreased 4%, from $2.7 million to $2.6 million.

- As of December 31, 1986 CTG employed approximately 2,600 people. CTG currently employs approximately 2,700 employees through 53 branch offices in the U.S., Canada, and the U.K., segmented approximately as follows:

Sales	90
Systems engineers	2,100
Other	510
	2,700

  - CTG currently employs over 2,600 employees through 50 branch offices in the U.S., Canada, and the U.K.

- CTG competitors include AGS Computers, Inc., Computer Horizons, Keane, Inc., CGA Computer, Inc., and the "Big 8" accounting firms.

KEY PRODUCTS AND SERVICES

- INPUT estimates approximately 95% of CTG's 1986 revenue was derived from its various professional services and 5% from conversion and direct mail processing services.

- The scope of professional services work performed by CTG ranges from specific, minor tasks of short duration, to large complex tasks that require multiple systems engineers for a long period of time. Typically, CTG's professional staff augments and becomes part of the client's on-site software development team on a specific application or project. A majority of CTG's clients are large companies with multiple locations and substantial data processing operations. Most of CTG's clients use IBM systems.

- CTG's services include the following:

  - Business Application Programming. The company's major source of revenue is from business application programming services. When hired to perform these services, a CTG business application programmer writes software code implementing a particular application designed by a systems analyst. An assignment usually involves three to ten of the company's systems engineers programming under the direction of a client project manager or a company project manager for a period ranging from two to eighteen months. One example of such a project is the development and implementation of an order entry and tracking system for a major steel manufacturer.

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- Systems Analysis and Design. These services involve the analysis and documentation of business problems and creative application of computer techniques to satisfy the user's particular information needs. The result of this effort is detailed specifications enabling a programmer to write a series of computer instructions. One example of such a project is the analysis and design of a transaction-processing and information-retrieval system for a banking client's savings accounts.

- Engineering, Scientific, and Process Control Programming. These services consist of scientific programming which involves the conversion of mathematical and scientific formulas into computer programs and process control programming which permits the computerized monitoring and control of a continuous process, such as manufacturing, environmental monitoring, or energy management. One example of this service is the development of a system that simulates emergency conditions in nuclear reactor control rooms; this system is used to train control room technicians.

- Software Conversion Services. With the Dataware, Inc. acquisition and the licensing of the CORTEX software product, the company entered the software conversion services marketplace. Dataware provides vendor-to-vendor conversion services and language translations.

- Consulting. The company performs advisory services, feasibility studies, fact-finding investigations and other tasks for clients who intend to install or replace computer equipment and software systems.

- Software Package Support. CTG is in a strategic position to provide application and technical support to its customers that purchase software products from software vendors, including Cullinet, IBM, Applied Data Research, Software AG Systems, Management Science America, Computer Usage Corporation, McCormack & Dodge, Hogan Systems, and others.

- During 1985, CTG reorganized the operations of its former Service Bureau and formed the CTG Technology Center. Services provided through this unit include the following:

  . Direct mail services are offered predominantly to major financial institutions and other businesses that solicit business through the mail. Direct mail clients include Mellon Bank and the Bank of New York.

  . The Technology Center also markets and supports the company's conversion services.

  . The Technology Center also houses the Corporate Projects Office (CPO).

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- Examples of specific services provided by CTG to certain target markets follows:

  - Financial Services.

    . CTG staff has expertise in the following applications:

      - Retail banking.
      - Wholesale banking.
      - Bank/branch automation.
      - Corporate support systems.
      - International banking.
      - Trust/asset based systems.
      - ATM/POS networking.
      - Insurance systems.
      - Brokerage systems.

    . CTG provides consulting services in the following areas:

      - Banking operations.
      - Hardware/software evaluation.
      - Project management.
      - Backup/recovery.
      - Quality assurance.
      - Implementation methodology.
      - Planning.
      - Testing.

    . CTG has project development experience in the following service areas:

      - Entire project teams.
      - Conversion teams.
      - Package/product support services.
      - IMS DB/DC IDMS support.
      - Application support.
      - Installation/maintenance support.

    . Project examples include the following:

      - CTG has experience in developing international banking systems. In one project for a Fortune 50 banking corporation, CTG developed six functional sub-divisions: Foreign Exchange; Euro-Currency; Branch Accounting; Maintenance; Global Accounting; and Technical Support.

      - CTG teams have developed various deposit applications with time orientation, including Investor/Passbook Accounts, Business Savings Accounts, IRA products, and the full range of Certificate(s) of Deposits.

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- CTG staff can assume project leadership. For the implementation of an on-line securities transfer system at a major bank, CTG's responsibilities included systems analysis, design, specifications, scheduling, development, testing, installation, training, and user education.

- For a major Pittsburgh bank, CTG Systems Managers and staff were responsible for significant enhancements to the installment loan and Rite-A-Loan systems.

- At a large California financial institution, CTG designed an installment loan system in a ninety day period on time and within budget.

- In addition to participating in ATM design and implementation activities for two California financial institutions, CTG developed an ATM Problem Management System.

- CTG has organized an institution's entire internal system for an Employee Profit Sharing Trust.

- A CTG team of analysts and programmers are assisting in the development of a financial database (IDMS) for a very large Eastern insurance company. The database, when completed, will allow management to access current policy enforcements/assets/liabilities for varying lines of insurance.

- CTG is involved in the analysis and design of a decision support system, utilizing an accounting systems database (FOCUS), which will enable a large brokerage corporation to access their nationwide operating locations as to productivity vs. forecasts.

- Industrial Automation.

  . CTG staff has expertise in the following functional service areas:

    - Software engineering.
    - Interface engineering.
    - Turnkey project management.
    - Analysis and design.
    - Detail design and coding.
    - Installation.
    - Implementation.
    - Documentation.
    - Training.

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- Applications supported include:
  - Real time systems.
  - Data acquisition systems.
  - Graphics and operator/interfacing.
  - Process control.
  - Hardware/software integration.
  - Communications.
  - Simulation and modeling.
  - Robotics.
  - Signal conditioning.
  - Logical sequencing and machine control.
  - Microprocessor-based systems development.
  - Computer-aided design and engineering.
  - Biomedical applications.
  - Research and development.
  - Statistical analysis.
  - Scheduling (CPM/PERT).
  - Linear programming.
- Hardware environments supported include: IBM; DEC PDP-11; VAX-730, 750, 780; DEC 10; Gould-SEL; GE; Harris; HP 1000; HP 3000; Honeywell Level 6; CDC Cyber 18; DG NOVA; DG Eclipse; Modcomp Classic; Prime; TI; Gould Modicon; Westinghouse 2500; Intel 8080-8088; Motorola 6800 & 68000.
- Project examples include:
  - The development of a system/productivity tool to assist in the automation of a hot strip mill for a major steel company.
  - CTG provided a project team to develop a microcomputer-based controller for a manufacturer of plastic processing machinery.
  - Working with a client hardware engineer, CTG developed software to drive a real time functional test of an automotive subassembly.
- CTG's Amtec subsidiary, located in Los Angeles, supports aerospace business. Clients include Rockwell and the Jet Propulsion Laboratory.

- Telecommunications.
  - Function services provided include:
    - Strategic planning.
    - Project management.

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- Data administration.
- Performance tuning.
- Analysis and design.
- Programming.
- Automated conversions training.
- Information center review and design.
- Software package modification and installation.
- Local and wide area network design.

- Applications supported include:

  - Customer services: Order entry, order distribution, order tracking, billing, and apply payments.

  - Network services: Plant inventories, plant work distribution, facility assignments and maintenance, and network software design and development.

  - Operator services: Directory, directory assistance, and intercept.

  - Marketing services: Market analysis, product analysis, and sales office support.

- CTG telecommunications clients include:

  - Fifteen divisions of interstate companies; 11 regional and state telephone companies; 7 units of large independent companies; and one international company.

- Project examples include the following:

  - A Bell Operating Company, employed CTG to analyze its operating systems and data bases, make recommendations for improvements, and provide technical support during implementation.

  - For an interstate marketing unit of a telecommunications Company, CTG interviewed users and provided specifications and design for a distributed network, UNIX-based system. CTG also develped specifications for an Order Entry System for another unit of the company.

  - For a Bell Holding Company, CTG provided installation, enhancements, and production support for a series of financial software packages.

  - CTG conducted a review of an Information Center design for a Bell Holding Company and provided recommendations for implementation both from an operational and a human factors' view.

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- For a Bell Holding Company, CTG programmers are modifying the Order Entry and Customer Billing Systems. For an interstate telecommunications company, CTG is providing maintenance and special project support on a Marketing Information System.

- During 1985, CTG established a Corporate Project Office (CPO) to address large-scale systems development (in excess of $1 million). A major medical facility has contracted with CTG to plan an integrated medical information system under a multi-year agreement.

- CTG's Institute for Technical and Management Training located in Buffalo (NY) provides in-depth training for all of CTG's system engineers.

INDUSTRY MARKETS

- CTG's target markets include large organizations in manufacturing, financial services, telecommunications, and utilities. Seventy-five of the Fortune 100 companies are CTG clients.

- While the energy and steel markets declined in 1986, strong growth from manufacturing and finance resulted in the revenue growth from CTG's ten largest clients from $35 million in 1985 to over $40 million in 1986.

  - During 1986, CTG earned revenue of over $1 million with each of 32 different companies.

  - CTG did over $100,000 of business with over 200 clients.

- Major clients include GE, Kodak, DuPont, and Westinghouse.

GEOGRAPHIC MARKETS

- Over 99% of CTG's 1986 revenue was derived from the U.S. and the remainder from Canada and the U.K.

- CTG management expects international revenue to increase as a result of the Canadian and U.K. acquisitions made during 1986.

- CTG has over 50 office locations in the U.S., Canada, and the U.K.

COMPUTER HARDWARE AND SOFTWARE

- CTG has the following computers installed at its Technology Center in Orchard Park (NY):

  - 1 IBM 4381-2, MVS, VM, CMS, DOS/VSE.

  - 1 IBM 4341-12, MVS, CMS, DOS/VSE.

  - 1 DEC VAX-11/750, VMS.

  - 1 AT&T 3B2.

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FINANCIAL UPDATED TO COMPANY PROFILE DATED JULY 1984

COMPUTER TASK GROUP, INC.
800 Delaware Avenue
Buffalo, NY 14209
(716) 882-8000

David N. Campbell, Chairman and CEO
John P. Courtney, President and COO
Public Corporation, OTC
Total Employees: 1,500
Total Revenue, Fiscal Year End 12/31/84: $82,923,000

COMPUTER TASK GROUP, INC.
FIVE-YEAR FINANCIAL SUMMARY
($ thousands, except per share data)

ITEM \ FISCAL YEAR	1984	1983	1982	1981	1980
Revenue	$ 82,923	$ 54,193	$ 40,116	$ 38,085	$ 24,935
. Percent increase from previous year	53%	35%	5%	53%	38%
Income before taxes	$ 4,054	$ 2,564	$ 2,109	$ 2,076	$ 1,826
. Percent increase from previous year	58%	22%	2%	14%	82%
Net income	$ 2,108	$ 1,454	$ 1,144	$ 1,271	$ 1,006
. Percent increase (decrease) from previous year	45%	27%	(10%)	26%	59%
Earnings per share (a)	$ 1.02	$ 0.75	$ 0.62	$ 0.75	$ 0.84
. Percent increase (decrease) from previous year	36%	21%	(17%)	(11%)	50%

(a) Restated to reflect a four-for-three stock split declared April 27, 1983 for stockholders of record on May 13, 1983.

- Computer Task Group (CTG) management attributes increases in revenue and earnings to increased demand for services, improvements in branch operations, and to two acquisitions completed in 1984 that accounted for 19% of revenue increases.

  - Holvick Corporation of Detroit (MI), acquired January 1, 1984, specializes in professional services to the automotive industry. Amtec Systems, Inc. of Los Angeles (CA), acquired July 1, 1984, provides professional services in government, military, and aerospace fields and operates as a wholly-owned subsidiary of CTG.

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- Both companies were acquired for cash and short-term notes payable. The total cost of these acquisitions was $2.8 million. The acquisitions were accounted for under the purchase method of accounting.

- During 1984 CTG discontinued the operations of its Application Products Division, which had incurred losses in the previous two years. This division consisted of two operating units.

  - In March 1984, CTG sold the Transportation Products Unit which marketed turnkey minicomputer systems to the transportation industry.

  - In December 1984, CTG closed down the Personal Computer Software Unit that marketed applications software for personal computers.

  - The discontinued operations of this division contributed $663,000 of revenue in 1984 and $2,789,000 in 1983.

SOURCE OF REVENUE

- INPUT estimates that ninety-three percent of CTG revenue in 1984 was derived from professional services, an increase of 64% over the previous year. Six percent was derived from processing services provided by the Service Bureau Division. The remaining 1% was derived from the closed Application Products Division, interest, and other. A three-year summary of source of revenue by each operating division follows ($thousands):

	1984 (a)	1983	1982
Professional Services	$77,370	$47,177	$34,163
Service Bureau	4,660	3,868	3,333
Application Products (b)	663	2,789	1,966
Interest and Other	230	359	654
Total	$82,923	$54,193	$40,116

(a) INPUT estimate.
(b) Discontinued operations in 1984.

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COMPUTER TASK GROUP, INC.
800 Delaware Avenue
Buffalo, NY 14209
(716) 882-8000

David N. Campbell, Chairman of the Board and Chief Executive Officer
John P. Courtney, President and Chief Operating Officer
Public Corporation, OTC
Total Employees, Fiscal Year End 12/31/83: 1,241
Total Revenue, Fiscal Year End 12/31/83: $53,834,000

THE COMPANY

- Computer Task Group, Inc. (CTG) was founded in 1966 and is one of the largest independent suppliers of computer-related professional services to the commercial market in the U.S. In addition, CTG offers processing services and software products. Until the first quarter of 1984, CTG marketed turnkey systems to the trucking industry.

- During 1983 CTG acquired three professional services firms. The total cost of the acquisitions was $2,239,000. All companies were acquired for cash and short-term notes payable.

  - Diversified Systems, Inc. was acquired on March 24, 1983. The St. Louis-based company employed approximately 70 persons and generated an estimated $3.5 million in revenue in 1982. Diversified Systems also had an office in Denver.

  - Automated Business Systems, Inc. of Rochelle Park (NJ) was acquired by CTG on April 1, 1983. ABS was founded in 1969 and primarily serves major financial and insurance institutions in the New York City area. Automated Business Systems generated $1.8 million in revenue in 1982 and employed approximately 30 people.

  - Data Structures, Inc. was acquired on September 1, 1983. Headquartered in New York City, the company provides consulting and programming support to Fortune 1000 companies in the discrete manufacturing, utilities, and banking industries. Data Structures employed approximately 20 people and generated $1.2 million in revenue in 1982.

- On February 3, 1984, CTG acquired Holvick Corporation of Detroit for an undisclosed amount of cash. Founded in 1978, Holvick Corporation serves Fortune 500 companies in the automotive and public utility industries. Holvick Corporation had revenue of $1.0 million in 1983 and employed 25 people.

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- CTG will continue to evaluate acquisition prospects as part of its goal of becoming a $100 million company by 1987.

COMPUTER TASK GROUP, INC.
FIVE-YEAR FINANCIAL SUMMARY
($ thousands, except per share data)

ITEM \ FISCAL YEAR	1983	1982	1981	1980	1979
Revenue	$53,834	$39,462	$37,322	$24,935	$18,035
. Percent increase from previous year	36%	6%	50%	38%	28%
Income before taxes	$ 2,564	$ 2,109	$ 2,076	$ 1,826	$ 1,005
. Percent increase from previous year	22%	2%	14%	82%	21%
Net income	$ 1,454	$ 1,144	$ 1,271	$ 1,006	$ 632
. Percent increase (decrease) from previous year	27%	(10%)	26%	59%	20%
Earnings per share (a)	$ 0.75	$ 0.62	$ 0.75	$ 0.84	$ 0.56
. Percent increase (decrease) from previous year	21%	(17%)	(11%)	50%	19%

(a) Restated to reflect a four-for-three stock split paid on June 3, 1983, to stockholders of record on May 13, 1983. Computer Task Group, Inc. also paid a $0.05 per share dividend on common shares outstanding subsequent to the stock split.

- 1983 financial data include the revenue and operating profits of the acquired companies.

- CTG management attributes the earnings drop in 1982 and the nearly flat revenue growth that year to the effects of the recession. The turnaround in 1983 was attributed to four factors: increased demand for CTG services brought about by the economic recovery, addition of clients and offices through acquisitions made in 1983, a 42% increase in Application Products Division revenue (where losses were reduced by more than 60%), and increases of 16% in revenue and 24% in operating profit of the Service Bureau Division.

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- At the end of 1983, CTG employed approximately 1,200 people, segmented as follows:

	Year ended December 31		
	1983	1982	1981
Professional services	1,039	740	728
Application products	28	29	55
Service bureau	89	93	99
Other	85	59	60
	1,241	921	942

- With the acquisition of Holvick Corporation in February 1984, CTG's professional services staff totals 1,064. Total employment for CTG, including the Application Products and Service Bureau Divisions, now exceeds 1,300.

KEY PRODUCTS AND SERVICES

- Professional services accounted for 88% of CTG's 1983 revenue. Processing services offered by the Service Bureau Division accounted for 7% of total revenue, while turnkey systems sales generated most of the remaining 5%. Software product sales amounted to less than 1% of total revenue.

- The contribution of each operating division to total company revenue is shown in the following chart ($ thousands):

	1983	1982	1981	1980	1979
Professional Services	$47,177	$34,163	$29,118	$19,195	$11,522
Application Products	2,789	1,966	5,196	3,025	4,259
Service Bureau	3,868	3,333	3,008	2,715	2,254

- CTG's Professional Services Division provides business programming, systems analysis and design, engineering, scientific and process control programming, and consulting services.

  - In the past two years, CTG has directed its efforts toward three vertical markets: Financial Industry Services, Engineering, Scientific and Process Control (ESPC) Services, and Cullinet Support Services.

    . The Financial Industry Services group generated $8.1 million in revenue in 1983, up from $4 million in 1982. This group specializes in providing financial systems expertise to banks, savings and loans, brokerage firms, and other organizations within the financial industry. For example, CTG is assisting Citicorp Acceptance Company in the design, conversion, and implementation of an $8 million Branch Support System that will automate Citicorp's branches throughout the U.S.

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- CTG has established a National Application Development Center in Pittsburgh to provide support for engineering, scientific, and process control environments. The ESPC group develops systems related to robotics, chemical industry modeling, steel industry automation, and petroleum industry modeling and process control. ESPC group revenue was $3.6 million in 1983, an increase of $1 million over 1982 revenue.

- The Cullinet Support Services Group is working with Cullinet Software, Inc. to provide application development services for IDMS users. This activity generated $3.7 million in 1983, up from $300,000 in 1982.

- The Professional Services Division has added MODEL/IMS (Monsanto On-Line Development Language), a software development productivity tool, to the list of products for which CTG provides support. CTG acquired the rights from Monsanto Corporation in 1982 to use and develop the product.

- In 1983 CTG established a National Account Marketing Group, which specializes in providing services to AT&T and the new Bell operating companies.

- The Service Bureau Division (SBD) offers batch processing of payroll and other accounting applications and direct mail services. Data entry and other data processing services are also offered. Two major customers, the State of New York and Blue Cross of Western New York, accounted for approximately 47% of the division's 1983 revenue.

  - CTG Mailsystems (direct mail services) are offered to large national financial and nonprofit institutions. The Service Bureau Division has placed greater emphasis on this service. Direct mail services accounted for over 40% of SBD's total 1983 divisional revenue, versus 29% in 1982 and 18% in 1981.

- As of 1983, the Application Products Division (APD) consisted of the Transportation Products Unit and the newly formed Personal Computer Software (PCS) Unit. The Business Computer Unit, formerly a part of APD, was combined with the Professional Services Division in 1983.

  - In the first quarter of 1984, CTG decided to discontinue the marketing of turnkey systems to the trucking industry, thereby dissolving the Transportation Products Unit. This business unit had contributed about 5% of total company revenue, but it had sustained operating losses in 1982 and 1983.

    - The TRANSPAC products marketed by the Transportation Products Unit were introduced in 1981 after CTG acquired the rights to software formerly marketed by Fleet Management Systems and Marathon Business Systems. The turnkey systems

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were based on Basic Four and Texas Instruments minicomputers and included RATEPAC (for common carriers), BULKPAC (for bulk and special carriers), LEASEPAC (for truck leasing companies), WAREHOUSEPAC (for public warehouses), and CARRIERPAC (for private carriers). CTG had sold nearly 100 TRANSPAC systems.

- The establishment of the Personal Computer Software Unit marked CTG's first venture into the microcomputer software market.

  . In November 1982 CTG introduced VehicleCTRL, a vehicle maintenance reporting system for fleets of trucks, buses, or autos. Designed for use on the Apple II or IBM PC, the VehicleCTRL system stores and analyzes information on maintenance, repair, and fuel and oil purchases. The software sells for $599.

  . In December 1983 CTG introduced SalesCTRL, an integrated sales management system for the IBM PC and PC-XT. The software combines the features of a list handler, a data base system, report generator, word processor, and an automatic telephone dialing system. The software sells for $299.

- PCS accumulated losses of $312,000 in 1983 and $250,000 in 1982, largely due to development costs associated with the new products. By the end of the first quarter of 1984, CTG had sold 250 units of microcomputer software.

INDUSTRY MARKETS

- CTG's Professional Services Division derived approximately 75% of its 1983 revenue from Fortune 500 financial institutions or Fortune 500 companies in the manufacturing and steel industries. Other market targets include insurance firms and public utility companies.

- The Service Bureau Division markets its direct mail services to large financial and nonprofit organizations, while its processing services are offered to small- and medium-sized firms in western New York.

GEOGRAPHIC MARKETS

- One hundred percent of CTG's 1983 revenue was derived from customers in the U.S.

- At year end 1983, CTG operated in 23 cities. In addition to its headquarters location in Buffalo, CTG currently has branch offices in the following cities: Albany (NY), Atlanta, Baltimore, Boston, Buffalo, Charlotte, Chicago, Cincinnati, Cleveland, Columbus (OH), Dallas, Dayton, Denver, Detroit, Indianapolis, Lehigh Valley (PA), Long Island (NY), Merrillville (IN), Morristown (NJ), New York City, Orlando, Philadelphia (Center City (PA)), Pittsburgh (two offices),

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Raleigh, Rochester, St. Louis, Syracuse, Tampa, Washington (DC), and Winston-Salem.

- In addition to the branch offices, CTG has satellite offices in the following locations: Erie (PA), Greenville (SC), Harrisburg, Los Angeles, San Francisco, and Wilmington (DE).

COMPUTER HARDWARE AND SOFTWARE

- At its data center in Buffalo, CTG uses an IBM 4341 with the OS/VS1 operating system. The data center also uses an IBM 3800 laser printer, primarily for the direct mail services.

- At the National Application Development Center in Pittsburgh, CTG's Engineering, Scientific, and Process Control Group uses a DEC VAX 11/750 with the VMS operating system.

- In 1983 CTG installed IBM PCs in each branch office for internal operations. These computers are linked with the 4341 in Buffalo.

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FINANCIAL UPDATE TO HIGHLIGHT DATED SEPTEMBER 1981

COMPUTER TASK GROUP, INC.
800 Delaware Avenue
Buffalo, NY 14209
(716) 882-8000

David N. Campbell, President
Public Corporation, OTC
Total Employees: 921
Total Revenue, Fiscal Year End 12/31/82: $39,462,000

COMPUTER TASK GROUP, INC.
FIVE-YEAR FINANCIAL SUMMARY
($ thousands, except per share data)

ITEM \ FISCAL YEAR	1982	1981	1980	1979	1978
Revenue	$ 39,462	$ 37,322	$ 24,935	$ 18,035	$ 14,144
. Percent increase from previous year	6%	50%	38%	28%	59%
Income before taxes	$ 2,109	$ 2,076	$ 1,826	$ 1,005	$ 833
. Percent increase from previous year	2%	14%	82%	21%	112%
Net income	$ 1,144	$ 1,271	$ 1,006	$ 632	$ 525
. Percent increase (decrease) from previous year	(10%)	26%	59%	20%	60%
Earnings per share	$ 0.82	$ 1.00	$ 1.12	$ 0.75	$ 0.63
. Percent increase (decrease) from previous year	(18%)	(11%)	49%	19%	62%

SOURCE OF REVENUE

- Computer Task Group's 1982 revenue was derived as follows:

- Professional services (Professional Services Division)	87%
- Batch processing services (Service Bureau Division)	8
- Turnkey systems (Application Products Division)	3
- Applications software packages (Application Products Division)	2
	100%

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- The contribution of each operating division to total company revenue is shown in the following chart ($ thousands):

	1982	1981	1980	1979	1978
Professional Services Division	$34,163	$29,118	$19,195	$11,522	$ 7,374
Application Products Division*	1,966	5,196	3,025	4,259	4,232
Service Bureau Division	3,333	3,008	2,715	2,254	2,538
	$39,462	$37,322	$24,935	$18,035	$14,144

* The company reorganized its Business Computer Division during 1981 into the Application Products Division, which offers both turnkey systems and applications software packages.

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COMPANY HIGHLIGHT

COMPUTER TASK GROUP, INC.
800 Delaware Avenue
Buffalo, NY 14209
(716) 882-8000

David N. Campbell, President
Public Corporation, OTC
Total Employees: 1,000
Total Revenue, Fiscal Year End 12/31/80: $24,935,000

PRINCIPAL BUSINESS

- Computer Task Group, Inc. (CTG) was founded in 1966 and primarily provides professional services. CTG also markets processing services, turnkey systems, and software products.

- On October 15, 1980, CTG acquired Neoterics, Inc. for a combination of 92,001 CTG common shares valued at $874,000, and $425,000 in cash. A professional services firm headquartered in Cleveland, Neoterics generated an estimated $6 million in calendar 1980 revenue and employed approximately 165 persons.

FINANCIALS ($ thousands, except per share data)

FISCAL YEAR / ITEM	1980	1979	1978	1977	1976
Revenue	$24,935*	$18,035	$14,144	$ 8,892	$ 4,910
. Percent increase from previous year	38%	28%	59%	81%	-
Income (loss) before taxes and extraordinary item	$ 1,826	$ 1,005	$ 833	$ 393	$ (96)
. Percent increase from previous year	82%	21%	112%	509%	-
Net income (loss)	$ 1,006	$ 632	$ 525	$ 328	$ (80)
. Percent increase from previous year	59%	20%	60%	510%	-
Net income (loss) per common share	$ 1.12	$ 0.75	$ 0.63	$ 0.39	$ (0.09)
. Percent increase from previous year	49%	19%	62%	533%	-

*Includes Neoterics' revenue for the three months ended December 31, 1980.

- Revenue for the six months ended June 30, 1981, was $17,856,000. Net income was $474,000.

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- Second quarter earnings reflected a pretax loss of $220,000 from Neoterics' customized software systems for community mental health centers. CTG is currently phasing out this business area.

- A public offering of 300,000 shares of CTG stock concluded on March 31, 1981, generated approximately $5 million.

SOURCES OF REVENUE

- CTG's 1980 revenue was derived as follows:

  - 77% Professional services (Professional Services Division).
  - 12% Turnkey systems (Business Computer Division).
  - 11% Batch processing services (Service Bureau Division).

- The contribution of each operating division to total company revenue is shown in the following chart ($ thousands):

	1980	1979	1978	1977	1976
Professional Services Division	$19,195	$11,522	$ 7,374	$ 4,129	$ 3,801
Business Computer Division	3,025	4,259	4,232	2,553	1,109
Service Bureau Division	2,715	2,254	2,538	2,210	-

PRODUCTS AND SERVICES

- CTG's Professional Services Division provides business programming, systems analysis and design, engineering, scientific and process control programming (introduced with the acquisition of Neoterics), and consulting services.

  - Areas of specialization include banking, discrete and process manufacturing, criminal justice, chemical, energy, insurance, and public utilities. Recent contracts include:

    . Development and programming of an automated liability control and information system for Blue Cross of Western Pennsylvania.

    . Design and installation of an international system for foreign exchange and Euro-dollar dealings for Marine Midland Bank, N.A.

    . Development and implementation of a prosecutor's management information system for the Erie County District Attorney's Office, and a criminal statistical system for the Buffalo Police Department.

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- Seventy-five percent of professional services revenue is derived from approximately 70 clients, including Fortune 500 industrial companies and Fortune 300 financial institutions.

- During the first half of 1981, CTG hired 150 additional systems engineers, bringing the total for Professional Services Division employees to 866. As a result, CTG expects to achieve a 40% growth in 1981 revenue for this division.

- In September 1981, CTG formed the Application Products Division to sell software products and turnkey systems to selected nationwide vertical markets. The new division consists of the Business Products Unit and the Transportation Products Unit.

  - The Business Products Unit (BPU) headquartered in Buffalo, NY, includes the former Business Computer Division which was formed in 1975. BPU markets general business turnkey systems using Basic Four minicomputers to the distribution, manufacturing, and services industries. Approximately 200 systems have been installed with prices ranging from $18,000 to $125,000.

    . BPU recently introduced the Construction Equipment Dealer Package. Marketed to the construction, retail, and wholesale distribution industries, it is an equipment rental, sales, and service software package. All modules are integrated to the general ledger and encompass general accounting, inventory, and word processing functions. Modules may be licensed separately or as an integrated package. The system is also sold on a turnkey basis for an average price of $40,000.

  - The Transportation Products Unit is headquartered in Reading, PA. This unit markets software products and turnkey systems to the transportation industry, including general and specialized trucking companies, vehicle leasing companies, and public warehouses. Included are motor carrier, truck leasing, warehouse, vehicle maintenance, and bulk carrier software components which may be purchased as an integrated software package for an average price of $35,000. Components may also be purchased separately, or combined and sold as a turnkey system.

  - The Transportation Products Unit was formed from two acquisitions made in April 1981:

    . CTG acquired rights to all software product offerings of Fleet Management Systems, Inc., headquartered in Wyomissing, PA. The products include truck leasing, freight hauling, and public warehousing systems.

    . CTG also acquired all rights to software packages for liquid bulk carriers, truck maintenance operations, and specialized and

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heavy-load haulers from Marathon Business Systems, based in Reading, PA.

- CTG's Service Bureau Division employs approximately 100 persons and offers batch processing of payroll, accounting, and other financial applications; direct mail services; and data entry services to clients located primarily in western New York.

  - CTG's C.A.S.H. (Contributor Analysis and Subscription History) was developed specifically for fund raising organizations.

  - The Service Bureau Division plans to increase marketing efforts of its direct mail services to banks, retail, and nonprofit organizations in 1981.

- New software products under development include systems for private carriers and moving companies. CTG expects to make these products available in late 1981.

INDUSTRY MARKETS

- CTG provides services and products to the manufacturing, chemical, insurance, banking, distribution, transportation, utilities, and services industries.

GEOGRAPHIC MARKETS

- 100% U.S.

- Office locations include Baltimore; Boston; Chicago; Cleveland; Washington, DC; St. Louis; Gary, IN; Charlotte and Raleigh, NC; Cincinatti and Columbus, OH; Philadelphia, Pittsburgh, and Reading, PA; New York, Buffalo, Rochester and Syracuse, NY.

COMPUTER HARDWARE AND SOFTWARE

- At its Buffalo headquarters, CTG maintains one IBM 4341 running under OS/VS1.

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COMPUTER TASK GROUP, INC.
800 Delaware Avenue
Buffalo, NY 14209
(716) 882-8000

David N. Campbell, President
Public Corporation, OTC
Total Employees: 518
Total Revenues, Fiscal Year End 12/31/78: $14.1 million
Computer Services Revenues: $10.7 million

THE COMPANY

- Computer Task Group, Inc. (CTG), was founded in New York in 1966 by Randolph A. Marks, currently Chairman of the Board, and G. David Baer, Executive Vice President. Originally, CTG provided professional services, specializing in the hospital/medical field. In 1979, CTG management still considers professional services its primary business, but also operates a computer center which provides data processing services, and is engaged in the sale and installation of minicomputer systems as a distributor for Basic/Four Corporation.

- CTG's total revenues for 1978 were $14.1 million, an increase of 59% over 1977's $8.9 million. Net income for the same period climbed 60% to $525,000 from $328,000 for 1977. A five year financial summary follows:

FIVE YEAR FINANCIAL SUMMARY, CTG
($ Thousand, Except Per Share Data)

FISCAL YEAR / ITEM	1978	1977	1976	1975	1974
Revenues	$14,144	$8,892	$4,910	$3,398	$3,027
. Percent change from previous year	59%	81%	44%	12%	6%
Income (Loss) before taxes, discontinued operations and extraordinary items	$ 833	$ 393	$ (96)	$ 174	$ 105
. Percent change from previous year	112%	509%	-155%	66%	8%
Net income (Loss)	$ 525	$ 328	$ (80)	$ 139	$ 4
. Percent change from previous year	60%	510%	-158%	338%	-93%
Net income (Loss) per average common share	$ .69	$ .43	$ (.10)	$ .18	-
. Percent change from previous year	60%	530%	-155%	-	-100%

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- CTG management attributes the 1978 growth in revenues to a significant increase in professional services stemming from the establishment of new branch offices in Baltimore, Chicago, and Pittsburgh in 1976 and 1977.
- Likewise, CTG management explains 1976's loss was due to the intitial expenses of opening the Pittsburgh office and increased costs associated with a higher level of systems and programming and computer service revenues.

- CTG divides its business into three divisions: Business Computer Division, Professional Services Division, and Service Bureau Division:

  - Twenty-four percent of CRG's revenues are derived from the Business Computer Division. As a distributor for Basic/Four Corporation's small business system, CTG also provides design and programming services as required by the purchasers of these minicomputer systems. CTG has sold over 150 Basic/Four minicomputers under dealership agreements. The remainder of this report will focus on the other two CTG divisions which provide professional and processing services.
  - Fifty-seven percent of revenues stem from the Professional Services Division. These services include design, programming and implementation of business applications and the training of the client's staff.
  - The remaining 18% of CTG revenues come from Service Bureau services. A major client of CTG's computer center business is the New York State Department of Labor, in connection with a Job Bank Program.

CTG
FIVE YEAR SUMMARY OF OPERATIONS
($ Thousand)

FISCAL YEAR / ITEM	1978	1977	1976	1975	1974
Professional services	$8,166	$4,129	$2,301	$2,038	$1,817
Computer sales	3,441	2,552	1,109	-	-
Service bureau	2,538	2,210	1,520	1,360	1,210

- CTG's 518 employees are divided as follows:

- Management	58
- Marketing	30
- Technical	380
- Administrative	50
	518

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KEY PRODUCTS AND SERVICES

- Seventy-seven percent ($8.2 million) of CTG's Computer Services revenues are derived from professional services. These services are primarily provided to Fortune 500 level companies located in the Northeastern and Midwestern U.S. Areas of specialization include Banking, Discrete and Process Manufacturing, and Criminal Justice Systems.

- The remaining 23% of computer services revenues ($2.5 million) stem from data processing services performed at CTG's computer center in Buffalo. Computer center services are sold primarily to companies located in Western and Central New York. Facilities provided include interactive, remote batch and batch services, supporting IMS, CICS and TSO. Areas of industry specialization include Retailing, Fund Solicitation/Direct Mail, and general application areas through standard financial packages.

- Basic/Four business systems are primarily sold to first time users in the distribution and manufacturing industries, using a base of developed software with modification. A specific CTG developed package, CUMAS, has been installed in ten locations for credit union processing on a Basic/Four.

INDUSTRY MARKETS CTG's revenues are primarily derived from banking, manufacturing, retail, state and local government, and services industries.

GEOGRAPHIC MARKETS CTG's revenues are derived from the following geographic areas:

- Middle Atlantic	86%
- East North Central	7%
- South Atlantic	7%

COMPUTER HARDWARE

- Computer equipment at the CTG data center consists of:

  - IBM 370/145, OS/VS1, IMS, CICS, TSO operating environment.
  - IBM 360/50, DOS, OS/MFT.

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COMPANY HIGHLIGHT

COMPUTER USAGE COMPANY
150 Fourth Street, Suite 600
San Francisco, CA 94103
(415) 543-3940

Victor E. Bartoletti, President and Treasurer
Public Corporation, OTC
Total Employees: 70
Total Revenue, Fiscal Year End 9/30/83: $4,536,667

THE COMPANY

- Computer Usage Company (CUC), incorporated in 1955, markets software products and turnkey systems to clients in the banking industry.
  - CUC formerly offered remote computing services to approximately 300 clients through its Computer Utility Division in Sunnyvale (CA). The Division was sold to Electronic Data Systems on September 1, 1983, for $1.3 million.
  - The company also marketed an agriculture turnkey system that accounted for $1.5 million of fiscal 1981 revenue. This business was sold October 30, 1981, to Computer Generation Inc.
- Revenue from continuing operations increased 38% in fiscal 1983 to $4.5 million, from $3.3 million in 1982. CUC had a net loss of $404,523 in 1983, as compared with a net loss of $1.5 million in 1982. A five-year financial summary follows:

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COMPUTER USAGE COMPANY
FIVE-YEAR FINANCIAL SUMMARY (a)
($ thousands, except per share data)

ITEM \ FISCAL YEAR	9/83	9/82	9/81	9/80	9/79
Revenue	$ 4,537	$ 3,276	$ 5,587	$ 5,689	$ 4,358
. Percent increase (decrease) from previous year	38%	(41%)	(2%)	31%	N/A
(Loss) from continuing operations	$ (72)	$(1,023)	$ (341)	$ (115)	$ (770)
. Percent increase (decrease) from previous year	93%	(200%)	(197%)	85%	N/A
Income (loss) from discontinued operations	$ (333)	$ (485)	$ (94)	$ 742	$ 926
. Percent increase (decrease) from previous year	31%	(416%)	(113%)	(20%)	N/A
Net income (loss)	$ (405)	$(1,507)	$ (435)	$ 627	$ 157
. Percent increase (decrease) from previous year	73%	(246%)	(169%)	299%	N/A
Earnings (loss) per share (b)	$ (0.33)	$ (1.21)	$ (0.35)	$ 0.47	$ 0.12
. Percent increase (decrease) from previous year	73%	(246%)	(174%)	292%	N/A

(a) The statements of operations for prior periods have been reclassified to reflect the operating results of the Utility Division as discontinued operations. Utility Division revenue was $3.4 million, $4.7 million, and $5.8 million for fiscal years 1983, 1982, and 1981, respectively.

(b) Adjusted for a three-for-two stock split on August 25, 1983.

- Fiscal 1983 revenue increase is attributed to the marketing of both new banking products and expanded versions of existing products. The decrease in 1982 revenue was primarily due to the sale of the agricultural turnkey business in October 1981 and to a decrease in turnkey-related hardware sales.

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- The fiscal 1983 net loss of $404,523 was attributed to:
  - Operating losses incurred for the third consecutive year by the Computer Utility Division, due to competition from minicomputers, new mainframes, and price cutting.
  - Approximately $1.4 million spent in developing new banking software products, up from $698,301 in 1982.

- For the first quarter ended December 31, 1983, revenue was $462,000, as compared with $1.1 million in 1982. CUC registered a net loss of $653,000 for the period, down from net income of $87,000 in 1982.

- In September 1983 CUC had 70 employees, segmented as follows:

Marketing/sales	7
Software services/customer support	53
Computer operations	2
General and administrative	8
	70

- Primary competition for CUC's funds transfer products comes from NCI (GEISCO) and SEI Corporation. Company management believes there is no primary competition for its International Transaction Processing System.

KEY PRODUCTS AND SERVICES

- INPUT estimates that 85% of CUC's fiscal 1983 revenue was derived from software products and 15% from turnkey system sales.

- CUC's International Transaction Processing System, formerly known as the Letter of Credit System and first installed in 1975, is a fully integrated, modular, on-line international banking system written in COBOL. The system provides for multi-bank processing and interfaces with communications systems including SWIFT, Telex, and CHIPS, as well as with accounting and general ledger systems. Approximately 65% of CUC's fiscal 1983 revenue was derived from combined software product and turnkey sales of this system.
  - The system is available in two versions:
    - The original version of the system runs on MDS-Qantel Model 40 equipment under a CUC proprietary operating system. The integrated software package is priced at $550,000. When sold as a turnkey package, Qantel hardware is priced at $150,000 to $650,000 and averages $300,000. There are 14 combined turnkey/software package installations.
    - A new software product version running on IBM and compatible mainframes under DOS and MVS was introduced in 1983 and sells for $700,000.

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- System modules include the following:

  . The Letter of Credit System allows the user to issue and advise documentary and standby letters of credit, providing information from customer master records.

    - Fee calculations are produced from customized fee schedules.

    - Accounting and liability entries are created for subsequent posting to other bank systems.

    - Worksheets used for negotiations contain a complete history of the credit, including pending amendments and payments.

    - The system can refinance sight credits on an acceptance basis or finance usance credits on a discounted or nondiscounted basis.

    - Advice of payment forms and funds transfer messages for use by the bank's funds transfer system are produced.

    - On-line access to customer outstandings and complete transaction histories is provided.

    - Reports include information on reciprocity, exposure, customer outstandings, and profitability.

  . The Bankers Acceptance System simplifies acceptance financing of a usance letter of credit or refinancing of a sight credit. Straight financing on non-letter-of-credit-related acceptances is also supported.

    - Computations of fees, discounts, rebates, and profits or losses from sales, as well as accrued or earned income, are performed.

    - The system can be used to facilitate the processing of anticipations, selling of one or more drafts, and presentation of drafts at maturity.

    - Real-time access to complete acceptances history is provided.

    - Reports include a daily audit trail of transactions, accrued discount, income, and the Federal Reserve Bank Acceptance Survey.

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- The Collection System automatically captures and accumulates all charges and fees, and processes payments. Other features include:
  - Production of presentation and acknowledgement letters.
  - Facilitation of tracing through bank-defined trace intervals on a system, customer, or collection level.
  - On-line access to complete collection history, including payments, modifications, and memoranda.
  - Standard collection reports and customized bank reports.
- The Reimbursement System provides single-step processing for letter preparation and registration of each reimbursement. Fees are computed and accumulated charges are either deducted from payments made to the claiming bank or charged to the issuing bank based upon the bank's schedule of fees. On-line access to a complete history, including all amendments and drawings of each authorization, is provided.

- CUC's Funds Management System, first introduced in 1971 as the Funds Transfer System, provides funds transfer, funds control, and cash management functions on a 24-hours-a-day, seven-days-a-week basis.
  - The system provides on-line interfaces to major wire services, including FedWire, BankWire, Telex, TWX, SWIFT, and CHIPS. Also available are on-line interfaces to other bank systems, including DDA, general ledger, savings, customer profitability, and customized interfaces for various cash management services.
  - Both a Customer Master File and Wire Master File, which stores fully and partially repetitive funds transfer transactions, are maintained. The system's inquiry function provides access to customer account and transaction activity summaries, as well as wire service status and statistics.
  - Funds control functions provide improved control of bank funds in Federal Reserve and Due-From accounts, with automatic update of account balances.
    - Fund buying/selling transactions are handled, including repurchase agreements, standing orders, rollovers, and collateral inquiry and maintenance.
  - Cash management services provide access to a corporation's account activities including starting, current, and book balances; total daily debits and credits; and target balance. An interface is available for balance loading from the mainframe and on-line activity reporting to the mainframe.

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- Reports are available on a daily, weekly, monthly, and one-year historical basis.

- The system runs on MDS-Qantel Model 20 (CUC proprietary operating system), Tandem NonStop (GUARDIAN), and DEC PDP-11/24 (RSX-11M) equipment.

  . The Qantel product version is available as a turnkey system with prices ranging from $100,000 to $220,000.

  . Versions running on Tandem and DEC equipment are available as software products only, priced from $200,000 to $350,000.

  . There are 24 combined software product and turnkey installations of the Funds Management System.

INDUSTRY MARKETS

- One hundred percent of Computer Usage's fiscal 1983 revenue was derived from clients in the banking and finance industry.

  - CUC's target market is the 500 largest financial institutions worldwide.

  - Nine of the 17 largest U.S. banks have Computer Usage systems installed. One client represented 16% of the company's fiscal 1983 revenue.

GEOGRAPHIC MARKETS

- One hundred percent of the company's fiscal 1983 revenue was derived from throughout the U.S.

  - Branch offices are located in Atlanta and New York City.

COMPUTER HARDWARE AND SOFTWARE

- Computer Usage has the following equipment installed:

  - 4 Qantel systems, CUC proprietary operating system.

  - 1 Tandem NonStop 11, GUARDIAN.

  - 1 DEC PDP-11/60, RSX-11M.

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FINANCIAL UPDATE TO HIGHLIGHT DATED MAY 1981

COMPUTER USAGE COMPANY
150 4th Street, Suite 600
San Francisco, CA 94013
(415) 543-3940

Victor E. Bartoletti, President
Public Corporation: OTC
Total Employees: 110
Total Revenue, Fiscal Year End 9/30/82: $7,984,659

COMPUTER USAGE COMPANY
FIVE-YEAR FINANCIAL SUMMARY
($ thousands, except per share data)

ITEM \ FISCAL YEAR	9/82	9/81	9/80	9/79	9/78
Revenue	$ 7,985	$ 11,354	$ 11,418	$ 9,814	$ 9,929
. Percent increase (decrease) from previous year	(30%)	(1%)	16%	(1%)	8%
Income (loss) before taxes	$ (1,507)	$ (435)	$ 659	$ 171	$ 260
. Percent increase (decrease) from previous year	(246%)	(166%)	285%	(34%)	130%
Net income (loss)	$ (1,507)	$ (435)	$ 627	$ 157	$ 240
. Percent increase (decrease) from previous year	(246%)	(169%)	299%	(35%)	128%
Earnings (loss) per share	$ (1.81)	$ (0.53)	$ 0.75	$ 0.19	$ 0.31
. Percent increase (decrease) from previous year	(242%)	(171%)	295%	(38%)	128%

SOURCE OF REVENUE

- Fiscal 1982 revenue for Computer Usage was derived as follows:

Remote processing services (Computer Utility Division)	59%
Turnkey systems (Product Marketing Division)	41%

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- A five-year summary of revenue by operating division follows:

FIVE-YEAR SUMMARY OF
COMPUTER USAGE REVENUE BY OPERATING DIVISION (a)

ITEM \ FISCAL YEAR	9/82	9/81	9/80	9/79	9/78
Product Marketing Division					
. Revenue	$3,160	$5,492	$5,665	$4,332	$5,424
. Operating profit (loss)*	$ 232	$ 540	$ 466	$ (307)	$ 476
Computer Utility Division					
. Revenue	$4,708	$5,767	$5,722	$5,451	$4,472
. Operating profit (loss)*	$ (257)	$ 228	$1,000	$1,216	$ 445

(a) Remaining revenue is generated by interest.
* Operating profit is before taxes and extraordinary credit.

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COMPANY HIGHLIGHT

COMPUTER USAGE COMPANY
141 Battery Street
San Francisco, CA 94111
(415) 543-3940

Victor E. Bartoletti, President
Public Corporation, OTC
Total Employees: 170
Total Revenues, Fiscal Year End 9/30/80: $11,418,019

PRINCIPAL BUSINESS Computer Usage Company (CUC) provides general remote computing services and turnkey systems to the banking and agriculture industries.

FINANCIALS ($ thousands, except per share data)

	9/80	9/79	9/78	9/77	9/76
- Total revenues	$11,418	$9,814	$9,929	$9,163	$9,180
- Income (loss) before income taxes and extraordinary credit	659*	171*	260*	(855)	(540)
- Net income (loss)	627	157	240	(855)	(446)
- Per share net earnings (loss)	0.75	0.19	0.31	(1.12)	(0.57)

* Utilization of operating loss carry forward.

SOURCES OF REVENUE

- 50% Turnkey systems (Product Marketing Division).
  . Maintenance accounted for 8% of this division's revenues.
- 50% Remote processing services (Computer Utility Division).
- The contribution of each operating division to total company revenues is as follows:

CUC FINANCIALS BY LINE OF BUSINESS
($ thousands)

	9/80	9/79	9/78	9/77	9/76
- Product Marketing Division					
. Revenues	$5,665	$4,332	$5,424	$4,541	$3,568
. Operating profit (loss)**	466	(307)	476	91	152
- Computer Utility Division					
. Revenues	$5,722	$5,451	$4,472	$4,219	$3,785
. Operating profit (loss)**	$1,000	$1,216	$ 445	(926)	(688)

** Operating profit is before taxes and extraordinary credit.

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PRODUCTS AND SERVICES

- The Product Marketing Division offers three turnkey systems: two for banking applications and one for agricultural applications.

  - Funds Transfer System, based on a Qantel minicomputer, includes applications for collections, international payments and money desk. There are currently 45 installations. Prices range from $60,000 to $150,000.
  - Letter of Credit System, also based on Qantel hardware, handles letter issuance collections, reimbursements and liabilities. There are eight installations of the system. Letter of Credit costs between $300,000 and $900,000.
  - Agriculture System, based on DEC PDP/8 hardware, includes applications for grain accounting, least cost feed formulation and economic modeling for feed lots. There are 180 installations of the system which ranges in price from $80,000 to $120,000.

- The average Computer Utility Division customer spends $2,000/month for a combination of interactive and remote batch processing services. The division primarily offers utility processing services with few specialized or proprietary applications. Software packages available to the 250 CUC clients include:

  - APL.
  - WYLBUR.
  - I.T.S. (Information Transmission Service): an electronic mailbox.
  - TSO.
  - CMS/VM.
  - CICS/IMS/DLI.

INDUSTRY MARKETS The bulk of CUC's revenues (59%) are derived from various industry segments serviced by CUC's Computer Utility Division. However, 32% of total revenues are derived from the banking and finance industry and 9% stem from agriculture.

GEOGRAPHIC MARKETS

- CUC markets its products throughout the United States with emphasis on agricultural states and large cities. The Utility Division primarily provides processing for clients in the San Francisco Bay Area.
- Branch offices are located in Atlanta, Boston, Chicago, Los Angeles, New York, Newport Beach, San Francisco and Sunnyvale (CA).

COMPUTER HARDWARE AND SOFTWARE CUC operates both its Amdahl 470/V6 with the MVT operating system and its National Semiconductor 7031 at its Sunnyvale (CA) data center. Clients are linked to the data center by leased lines.

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COMPANY HIGHLIGHT

COMPUTER USAGE COMPANY
141 Battery Street
San Francisco, CA 94111
(415) 543-3940

President: Victor E. Bartoletti
Public Corporation OTC
Total Employees: 175
Total Revenues, Fiscal Year End 9/30/78: $9,929,201

THE COMPANY

- Computer Usage Company (CUC) was founded in 1955 as a Delaware corporation to provide application and systems software, and contract programming. CUC now provides general remote computing services and turnkey systems to the banking and agricultural industries.

- Company revenues increased to $9,929,201 in 1978 from $9,163,474 in 1977, an 8% increase. Net income in 1978 was $240,380, up from a loss of $854,820 in 1977.

- In 1976 and 1977, CUC reported losses. These were attributed to:

  - Loss of revenues from a former subsidiary, CUC of Indiana, Inc.
  - Two consecutive years of before tax losses due to the substantial decrease in CUC's facilities management fees, a decrease in interest income, an increase in interest expenses, and a loss on the sale of CUC of Indiana, Inc.

FIVE YEAR FINANCIAL SUMMARY, CUC

FISCAL YEAR / ITEM	1978	1977	1976	1975	1974
Revenues from sales and services	$9,929,201	$9,163,474	$9,180,014	$5,819,919	$4,368,729
Income (Loss) before taxes	260,380	(854,820)	(540,321)	658,605	755,298
Net Income (Loss)	240,380	(854,820)	(446,321)	480,016	705,846

- CUC has two operating divisions:

  - Product Marketing Division primarily markets computer hardware and software to the end users. This division accounts for approximately 54% of revenues and has approximately 150 banking customers and 250 agribusiness customers. The division has been profitable since 1976.

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- Utility Division provides remote computing services and accounts for 46% of revenues. It has approximately 300 customers.
  - The Utility Division was formed in late 1975 when CUC acquired substantially all of the assets of a computer services division of the Singer Company, located in Sunnyvale, California.
  - The Utility Division, formerly called Data Center Operations, reported losses in 1976 and 1977. Profits improved in 1978 due to a revenue increase of 6% and a 19% decrease in operating expenses because of the consolidation of a former Greyhound Computer Data Center in San Francisco into the Sunnyvale center.

- The contribution of each operating division to total company revenues follows:

FIVE YEAR SUMMARY OF GROSS REVENUES AND INCOME (LOSS)
BEFORE TAXES AND EXTRAORDINARY CREDIT FROM
CUC OPERATING DIVISIONS

ITEM \ FISCAL YEAR	1978	1977	1976	1975	1974
Product Marketing					
Division Revenues	$5,423,644	$4,541,000	$3,568,000	$2,767,000	$ 831,000
IBT* (Est.)	190,000	91,000	152,000	(34,000)	(149,000)
Utility Division					
Revenues	4,471,997	4,219,000	3,785,000	-	-
IBT* (Est.)	151,000	(926,000)	(968,000)	-	-
Facilities Management					
Fees Revenues	-	363,000	1,618,000	2,556,000	3,000,000
IBT* (Est.)	-	(20,000)	279,000	726,000	905,000
Systems Design & Programming					
Revenues	-	41,000	112,000	168,000	200,000
IBT* (Est.)	-	-	(4,000)	(34,000)	(1,000)

*Income Before Taxes

- Marketing efforts are directed at the top 50 banks and large feed mills and feed lots. Management considers IBM its major competitor to the Product Marketing Division. Tymshare, NCSS, Boeing Computer Services, Optimum Systems, Inc. and MCAUTO are the major competitors of the Utility Division.

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KEY PRODUCTS AND SERVICES

- CUC's Product Marketing Division targets the banking and agriculture industries with customized turnkey systems.

- Systems offered the banking industry combine a Qantel minicomputer with CUC's operating system.

  - Applications available include:
    - Collections.
    - Domestic funds transfer.
    - International payments.
    - Letter of credit.
    - Money desk.
  - All turnkey systems are purchased. The letter of credit system costs approximately $70,000. Other systems range in price from $60,000 to $150,000, depending on customization required.

- Systems offered the agriculture industry combine the DEC PDP-11 with CUC's operating system.

  - Applications are:
    - Grain accounting.
    - Least cost feed formulation.
    - Economic model for feed lots.
  - The price range for the agribusiness systems is $80,000 to $120,000, depending on individual customization.

- Qantel and DEC provide maintenance for the minicomputers used in the turnkey systems.

- The Utility Division provides both interactive and remote batch computing to its 300 customers. The division does not offer any specialized application software on the network.

INDUSTRY MARKETS While the agriculture and banking industries are the prime users of CUC's turnkey systems, the Utility Division provides processing for clients from diverse industries.

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GEOGRAPHIC MARKETS

- CUC markets it products throughout the United States with emphasis in agricultural states and large cities. The Utility Division primarily provides processing for clients in the San Francisco Bay Area.

- Branch offices are located in:

  - Atlanta.
  - Chicago.
  - Clifton, New Jersey.
  - Los Angeles.
  - New York.
  - Newport Beach.
  - San Francisco.
  - Sunnyvale Data Center, California.

COMPUTER HARDWARE AND SOFTWARE One Amdahl 470/V6 MVT.

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COMPUTER USAGE COMPANY
300 Montgomery Street, Suite 500
San Francisco, California 94104
(415) 986-8757

Victor E. Bartoletti, President
Public corporation
Total company and computer services sales as of FY ending 9/75: $5,600,000

NUMBER OF EMPLOYEES engaged in computer services: 230

KEY PRODUCTS/SERVICES: CUC markets software (professional) services, software products, and some facilities management. Respectively they represent 50%, 30% and 20% of annual sales. Most users purchase customized applications or turnkey systems from CUC. Thus, marketing is conducted on a customized, rather than product basis.

APPLICATIONS: CUC provides customized general business and data base applications to the banking and insurance industries.

INDUSTRY MARKETS: Banking firms provide the main customer base. Annual sales by industry break down as follows:

• Banking/finance	60%
• Insurance	22%
• Retail and wholesale distribution	10%
• Government	8%
Total	100%

GEOGRAPHIC MARKETS: Users are located in major financial centers in the following regions throughout the U.S. Percent of annual sales by region is also shown:

• Northeast	35%
• Pacific States	25%
• Southeast	15%
• North Central	10%
• New England	10%
• West	5%
Total	100%

Branch offices are located in these cities:

Sunnyvale, California
Los Angeles, California
Chicago, Illinois
Bethesda, Maryland
Clifton, New Jersey
Norcross, Georgia
Fort Wayne, Indiana

COMPUTER HARDWARE AND SOFTWARE: 1 Amdahl 470. Software packages include Mark IV, RAMIS.

OVERALL ASSESSMENT AND TRENDS: In 1968, contract programming revenues represented $12 million annually to CUC. About 1970, however, Mr. Bartoletti and top management opted to get out of the business of providing

contract programming services to manufacturers and users of computers because it was unprofitable. CUC has redefined its market to that of providing applications, development and programming to users, particularly banking and insurance companies, such as Fireman's Fund. While total revenues are down from the late 60's era, profitability is up. Perhaps the most unique thing about CUC is its use of the Amdahl 470 for developing applications. If CUC and Amdahl are successful in penetrating the financial community, sales may at least double by 1980.

software division acquired by MSA
micrographics division acquired by Endata, Inc. } 1983

COMPANY HIGHLIGHT

COMPUTERISTICS, INC.
Two Skiff Street
Hamden, CT 06514
(203) 288-4885

James H. Chambers, President
Private Corporation
Total Employees: 94
Total Revenue, Fiscal Year End 10/31/82: $5,000,000
Computer Services Revenue: $4,750,000

THE COMPANY

- Computeristics, Inc. provides accounts receivable and order entry applications software systems, turnkey systems for small businesses, and micrographics services.
  - The company was formed in 1969 as a processing subsidiary of Uniroyal, Inc. Since 1975 Computeristics has derived all its revenue from noncaptive sources.
  - In 1978 Computeristics sold its processing operations in an attempt to focus on software, turnkey systems, and micrographics services.
  - In December 1980 Computeristics management purchased the company from Uniroyal and established headquarters in Hamden (CT).
    - Computeristics' subsidiary, First of Boston Computeristics (FBC), formed in 1973 as a joint venture between Computeristics and First National Boston Corporation, was sold to Uniroyal as a part of this agreement. FBC provided facilities management services for banks and thrift institutions and has since been sold by Uniroyal to First National Boston Corporation.
- Computeristics' operations are divided into three divisions and one subsidiary as follows:
  - The Software Division, headquartered in Hamden, develops and markets applications software.
  - The Micrographics-COM Division, headquartered in Danbury (CT), produces microfiche from print image computer output tapes.
  - The Minicomputer Division, headquartered in Hamden, markets and supports a Data General based turnkey system for small businesses.

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- Acc-u-Data, a subsidiary headquartered in Hamden, provides scientific and chemical analysis services to medical and academic communities. This noncomputer services segment of the company contributed approximately 5% of total revenue in fiscal 1982.

- As of October 31, 1982, the company had 94 employees. The company currently has approximately 100 employees, segmented as follows:

Marketing/sales	9
Software services/customer support	71
Computer operations	12
General and administrative	8
	100

- Major competitors in the software product area include University Computing Company, Management Science America, MCAUTO, and Arthur Andersen & Company. Competition in the micrographics-COM area comes from Anacomp and Zytron Corporation, a division of Dun & Bradstreet.

KEY PRODUCTS AND SERVICES

- Computeristics' fiscal 1982 revenue was derived as follows:

	Percent of Revenue	Revenue ($ thousands)
- Applications software	59%	$ 2,950
- Batch processing (micrographics)	28	1,400
- Turnkey systems	8	400
- Noncomputer services (scientific/chemical analysis)	5	250
	100%	$ 5,000

- Since 1980 Computeristics' management has emphasized the software package and micrographics services segments of the company's business. Turnkey systems sales have progressively decreased since that time and will represent a smaller portion of business in the future.

- Computeristics currently markets two applications software packages for IBM 370, 30XX, 43XX, and plug-compatible mainframes operating under OS, DOS, and VS and for use with CICS, IMS, IDMS, DL/1, and VSAM.

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- CustomAR®, an accounts receivable package designed with data base management capabilities, is available in both batch and on-line versions.
  - First introduced in 1969 as a batch system, CustomAR is currently installed at over 100 user locations. Clients typically are Fortune 500 companies in the manufacturing, publishing, and distribution industries.
  - Functions provided by CustomAR include credit approval and cash collection support, cash application and adjustments, accounting and financial controls, and reporting capabilities.
  - CustomAR ranges in price from $75,000 to $125,000.
- CustomORDER®, introduced in 1978, is an interactive order processing system providing a centralized repository for customer product and account information.
  - Modules include order processing, billing, pick lists, shipping documents, and inventory control.
  - There are approximately 20 installations of CustomORDER, which is priced at $110,000.

- Micrographics services are provided to over 65 customers from Computeristics' micrographics centers in Danbury and Stamford (CT). Microfiche is produced from print image computer output tapes for clients in all industries.
- Computeristics offers a turnkey system for small businesses (revenue less than $50 million), primarily in the manufacturing and distribution industry sectors.
  - Introduced in 1980, the system performs basic applications such as order entry, inventory control, and bill of materials.
  - The system price starts at $100,000 and is based on the Data General ECLIPSE minicomputer.
  - There are currently six systems installed.

INDUSTRY MARKETS

- Computeristics derives its revenue primarily from the discrete and process manufacturing and distribution industry sectors.
  - Software clients are typically Fortune 1000 companies.
  - Micrographics services are provided to clients in a variety of industry sectors.

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- Turnkey systems clients are smaller businesses in manufacturing and distribution.

GEOGRAPHIC MARKETS

- Ninety-five percent of Computeristics' fiscal 1982 revenue was derived from U.S. clients located nationwide. The remaining 5% of revenue was derived from Canada, England, and South America.

COMPUTER HARDWARE AND SOFTWARE

- The following computers are installed at Hamden headquarters.

  - 1 Data General CS60.
  - 1 Data General ECLIPSE C150.
  - 1 Data General ECLIPSE C330.
  - 1 Data General Nova 3.

- Micrographics services use the following equipment, installed in Stamford and Danbury:

  - 2 NCR 5330 COM Systems.
  - 1 NCR (Quantor 118) COM System.

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COMPANY HIGHLIGHT

COMPUTERISTICS
Oxford Management and
Research Center
Middlebury, CT 06749
(203) 573-2222

James H. Chambers, President
Wholly Owned Subsidiary of
Uniroyal, Inc.
Total Employees: 100
Total Revenues, Fiscal Year End
12/31/79: $7,000,000*

THE COMPANY

- Computeristics was formed in 1969 as a subsidiary of Uniroyal to provide processing for the parent. Since 1975, Computeristics has derived 100% of its revenues from non-captive sources. It currently markets turnkey systems, software products, and provides micrographics services.

- INPUT estimates that Computeristics' revenues for 1979 were approximately $7 million. Computeristics' management claims the company has been profitable since 1975.

- Computeristics' operations are divided into three divisions: micrographics, software and turnkey systems.

  - Prior to 1978, Computeristics also provided general utility batch and remote computing services to commercial clients. In 1978, management decided to specialize in turnkey systems and therefore sold the processing division.

- In addition to its divisions, Computeristics has two subsidiaries.

  - In 1973, the data processing subsidiaries of Uniroyal, Inc. and First National Boston Corporation entered into a joint venture to form First of Boston Computeristics (FBC). FBC primarily provides facilities management for banks and thrift institutions.

    . INPUT estimates that First of Boston Computeristics' revenues for FY 1979 reached approximately $4.5 million, and that it contributed approximately $2.3 million to Computeristics' total 1979 revenues.

  - Acc-u-Data is a Computeristics professional services subsidiary acquired in 1977. Its contribution to 1979 revenues was insignificant.

- Computeristics' 100 employees are divided as follows:

* INPUT estimate

June 1980

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-	Marketing sales	13
-	Software services/customer support	73
-	Computer operations	8
-	General and administrative	6
		100

KEY PRODUCTS AND SERVICES

- Forty percent of Computeristics' 1979 revenues were derived from software products, 15% from processing services (micrographics), 27% from turnkey systems, and 18% from professional services relating to the design of turnkey systems.

  - The turnkey systems division, which is responsible for both turnkey products and custom design of turnkey systems, accounts for 45% of total revenues. Computeristics' management intends for that division to provide only turnkey products. The turnkey systems division has evolved from providing 100% professional services at its inception to providing 60% professional services now.

  - The joint-venture subsidiary, First of Boston Computeristics, derived 100% of its 1979 revenues from processing services.

- Computeristics offers four turnkey systems based on Data General equipment.

  - Its first system, for temporary personnel agencies, was introduced in mid-1978. The system includes financial and scheduling applications.

    . With a base price of $40,000, including a Data General Nova, there are 15 installations of the system.

  - A turnkey system for doctor/dental clinic billing was introduced in 1979. Designed for single- or multiple-doctor offices, the system provides financial applications, daily doctor scheduling of patients and appointments, and insurance form capabilities.

    . There are five installations of the system, which starts at $70,000. The client has the option of either a Data General Nova or Eclipse, depending on capacity requirements.

  - Also introduced in 1979 was a small business system. This system includes general business applications: order entry, accounts payable and receivable, and general ledger.

    . With less than 10 installations, the small business system starts at $40,000 and is based on the Data General CS series minicomputer.

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- Computeristics introduced a turnkey system for small manufacturers (with revenues over $8 million) in 1980. It is capable of basic manufacturing applications such as order entry, inventory control and bill of materials.

  . There are currently four installations of the system. The system is priced at $100,000+ and is based on Data General Eclipse technology.

- Three software packages are marketed by Computeristics for the IBM 360/370 series and larger machines operating under DOS/OS/VS and CICS: CustomAR, CustomORDER, and a cash management package.

  - CustomAR is a batch and interactive accounts receivable and credit management system.

    . Functions such as adding a new account, account master update, check entry and cash application, write-offs to bad debts and other general ledger expense accounts, credit inquiry and review, selective account status and financial controls are handled directly by the user via CRT terminals.

    . Introduced in 1972, CustomAR currently has an installed user base of over 60 Fortune 500 companies. Price of the system starts at $55,000.

  - CustomORDER was introduced in 1979 and is an interactive system for order entry and inventory control.

    . It also uses CRT terminals to maintain a file of customer names, part descriptions, and both open and shipped orders. It will display the status, location, and inventory of every part in the user's line.

    . There are over 10 installations of CustomORDER. Pricing starts at $75,000.

  - Computeristics introduced a cash management system in 1980. This product forecasts receipts and disbursements for cash management control.

    . Two systems have been sold. Price of the product starts at $60,000.

- Examples of Computeristics' current system design contracts include the following:

  - An enrollee tracking system for Comprehensive Health Services of Detroit (CHSD), a health maintenance organization. A former Computeristics processing client, CHSD decided it wanted in-house control and

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the ability to develop new applications. Management selected a Data General Eclipse C/330 mini for which Computeristics designed software.

- For New Haven Terminal located in New Haven (CT), Computeristics developed a system that controls the discharging of various ship cargos such as lumber, oil, gas, chemical products and metals. The system produces account billings for storage charges for terminal customers and controls releases of inventory to consignees. It also produces sophisticated payroll for stevedores. The system includes financial applications such as accounts receivable and payable which feed a multicompany general ledger.

- Computeristics developed a distributed data processing system for Benrus, located in Fairfield County (CT). There are remote terminals in California which can access the customer data base maintained in Connecticut. The system includes order entry, invoice control, order change and cancellation, credit checking, future order releases, invoicing, sales analysis, bill of materials, purchase order entry and receipt.

- A system was designed for the North American headquarters of SAAB located in Orange (CT). This interactive inventory control system is accessed from remote terminals in California and Illinois communicating in a real-time environment. The system is capable of producing reports on a 300-line-per-minute printer located in the remote locations. Each remote location can interrogate the data base and inquire about inventory status. A customer request can be filled from headquarters or remote locations since the central processor maintains the inventory.

- Micrographics services, including computer output microfilm and microfiche, are provided by Computeristics' micrographics centers in Middlebury (CT) and Stamford (CT).

- Computeristics and First of Boston Computeristics offer National Check Transmission (NCT), a data transmission service linking a corporation with its regional lock-box banks throughout the country.

  - NCT polls banks in the Nationwide NCT system to collect customer remittance information. Remittance information from all banks is edited and balanced in accordance with the client company's standards. The consolidated remittance information is sent in a single transmission directly to the client's data processing facility in a format which allows for direct entry into its accounts receivable and credit management system.

  - NCT contributed an insignificant amount to Computeristics' FY 1979 revenues.

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- While 10% of FBC's revenues are derived from NCT, sixty percent of revenues are derived from facilities management contracts and 30% from processing services.
  - With 100 employees, FBC provides facilities management for commercial banks and thrift institutions in the Northeast. It currently has seven clients.
  - In addition, FBC provides interactive and batch processing services for 35 clients. Its applications include:
    - Demand deposit accounting.
    - Checking.
    - Installment loans.
    - Mortgage accounting.
    - Trust processing.
    - Certificate of deposit.
  - Its processing clients are primarily small banks in the Northeast.
- Acc-u-Data, the Computeristics professional services subsidiary, provides scientific contract programming and consulting for minicomputers.
  - Using Computeristics' computers, Acc-u-Data serves commercial (scientific) customers, the state of Connecticut and some universities.

INDUSTRY MARKETS Computeristics derives revenues from discrete manufacturers, wholesale distributors, medical and insurance industries, banking and financial institutions, and state government agencies.

GEOGRAPHIC MARKETS Computeristics has clients nationwide and derives less than 10% of its revenues from Canada and Europe.

COMPUTER HARDWARE AND SOFTWARE

- Computeristics has two data centers located in Middlebury (CT) and Allen Park (MI). It also has a micrographics center in Stamford (CT).
- The equipment at the Middlebury center consists of:
  - 1 Data General Eclipse M600.
  - 1 Data General CS 60.

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- 1 Data General CS 40.
- 1 Data General Eclipse C330.
- 1 Data General Nova.

- The Midwestern (Allen Park) center houses:

  - 1 Data General Eclipse.
  - 1 Data General Nova.

- FBC has the following equipment to provide its facilities management and processing services:

  - 1 IBM 360/50 operating under DOS/OS.
  - 1 IBM 370/138 operating under DOS.
  - 1 NCR 8550.

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COMPANY HIGHLIGHT

FY '79 $25,678,000

COMPUTERIZED AUTOMOTIVE REPORTING SERVICE, INC.
P.O. Box 235
Birmingham, AL 35201
(205) 956-8020

Beverly P. Head, Jr., Chairman, CEO
Public Corporation, OTC
Total employees: 350
Total revenues, Fiscal Year End 12/31/78: $20,216,893
Computer Services Revenues: $14,972,368

THE COMPANY

- Computerized Automotive Reporting Service, Inc., (CARS) was founded in 1964 by Beverly P. Head, Jr., John A. Williamson (Vice Chairman; President 1964-1976); and James R. Forman, Jr. (attorney) to provide management information systems to automobile dealers. It now offers both remote batch and interactive services to new car, truck, agricultural, heavy equipment, and various other types of automotive dealerships.

- Seventy-four percent of CARS' total revenues in 1978 were derived from providing remote computing services. The remaining revenues came from equipment rental, sales and service, and from equity in income of unconsoldidated affiliates.

- The company had a record 22% increase in revenues of $20,217,000 in 1978, from $16,520,000 in 1977. Net income increased 17% from $1,032,000 in 1977 as reflected in the chart below:

FIVE YEAR FINANCIAL SUMMARY, CARS
($ IN THOUSANDS)

ITEM \ FISCAL YEAR	1978	1977	1976	1975	1974
Revenues	$20,217	$16,520	$14,026	$8,663	$2,798
Income before Taxes and Extraordinary Item	1,546	1,482	658	334	74
Net Income	1,207	1,032	582	304	118

- During 1978 several of CARS' products were approved by Chevrolet, Freightliner, Deere and Company for use by their dealers. These approvals, while neither exclusive nor applicable to all products, are largely responsible for the majority of the new business volume increases in 1978.

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COMPANY HIGHLIGHT/COMPUTERIZED AUTOMOTIVE REPORTING SERVICE, INC.

- Effective December 22, 1978, the operations of CARS and its affiliated companies were consolidated under CARS when Business Communication Sciences, Inc., CARS' previous parent company, became a wholly-owned subsidiary through an exchange of stock valued at about $12 million.

- On March 23, 1979, CARS and General Computer Services, Inc. (GCS) of Huntsville, AL, signed an agreement whereby GCS would become a wholly-owned subsidiary of CARS. The agreement is subject to the approval of GCS's stockholders.

  - GCS primarily markets application software to the banking industry.
  - The GCS acquisition offers CARS an entry into the banking market and an opportunity to diversify to markets other than automotive dealerships.

- CAR's and its affiliates' 350 employees are distributed as follows:

Sales & Marketing	105
Operations and programming	126
Customer Service	63
Administrative	56
	350

- Major competitors are: The Reynolds and Reynolds Co., Automatic Data Processing, Ford Motor Company, and Display Data Corporation.

KEY PRODUCTS AND SERVICES

- Application services available through their network service include dealership accounting, lease company accounting, parts inventory control, payroll, and a new service, Sales and Service Merchandising System. The services are available on a remote batch or interactive basis.

- At the end of 1978 there were approximately 1,500 domestic customers using CARS services. Approximately 85% of the customers use one or more of the accounting services, 60% use one of the inventory services and 20% use the payroll service.

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COMPANY HIGHLIGHT/COMPUTERIZED AUTOMOTIVE REPORTING SERVICE, INC.

- CARS accounting products are the most widely used applications on the network. There are three accounting packages: Management Accounting, Standard Accounting, and Lease Accounting. Through the extensive use of tables and options throughout CARS accounting software, each customer can, to a large extent, tailor the accounting service it receives to its own individualized needs without CARS making any program modifications.

  - CARS' remote batch accounting systems furnish accurate, timely financial information twice daily through the Dealer Management Reports and the Daily Operating Control Reports.

- CARS inventory products include the CARSWAY on-line system, the FACTS remote batch system, and the weekly Mark V Pad Post system. The products are tailored to meet the size requirements of customers.

  - Mark V Pad Post system is designed for small, low-inventory volume dealerships. Transactions are handposted on a printout in the dealership and then keypunched by CARS for entry into the system.
  - FACTS is designed for the average-sized dealership. Customers receive a Counter Reference Report as a parts availability listing. While the dealer's files are updated daily, an updated counter reference report is received once a week.
  - CARSWAY is designed for larger, high inventory customers. It allows the dealer to access on-line the latest inventory, cost, pricing, stocking, and on-order information. In 1978 the On-Line Invoicing sub-system was added, allowing the parts counterman to create computer generated invoices.

- Until 1977, payroll was handled and processed separately from the accounting system. CARS has since developed a payroll/general ledger interface which allows payroll to be entered, and then the necessary accounting transactions are generated and routed to the proper accounting schedules.

- Introduced in 1978, Sales and Service Merchandising system (S/SM) provides information about the dealership's customers. The system maintains service work history, factory repair program information, and facilitates new car sales soliciting. Sales and Service Merchandising is available both on a remote batch and interactive basis.

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COMPANY HIGHLIGHT/COMPUTERIZED AUTOMOTIVE REPORTING SERVICE, INC.

INDUSTRY MARKETS One hundred percent of CARS services are marketed to automobile dealers, part of the retail distribution industry. There are approximately 30,000 new car dealerships and 45,000 other automotive dealerships (truck, agricultural, heavy equipment, etc.) in the United States. Management believes that many of these dealerships, most of which are now using computer services, are potential customers.

GEOGRAPHIC MARKETS CARS provides services to customers located throughout the United States and Puerto Rico. Similar services are provided in Australia, through a separate computer center, and in Japan via a leased telecommunications channel between Tokyo and the CARS computer center in Birmingham, Alabama. Management expects to begin operations in Canada in the near future.

COMPUTER HARDWARE AND SOFTWARE

- CARS currently uses an Amdahl 470 V/6 I and an IBM 360/65 in its data center in Birmingham. Plans call for replacing the IBM 360/65 with an Amahl 470 V/5 and upgrading the V/6 I to a V/6 II.

- Peripherals include Control Data disk drives and STC tape drives. Output is printed on IBM 3800 laser printers.

- The network uses IN-WATS lines, installed in 1974, for remote batch services. The Telenet packet-switched network is used for the CARSWAY on-line services. The terminals used for remote batch services, called TCS equipment, are modified Sycor 340 intelligent terminals. On-line customers use Texas Instruments terminals.

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→ B.P. Head, III, EVP
cc Richard Brown
Mgr. Mktg Svcs

COMPANY HIGHLIGHT

COMPUTERIZED AUTOMOTIVE
REPORTING SERVICE, INC.
P.O. Box 235
Birmingham, AL 35201
(205) 956-8020

Beverly P. Head, Jr., Chairman, CEO
Public corporation (Philadelphia Exchange), 86.1% owned by Business Communications Sciences, Inc.
Total employees: 277
Total revenues, fiscal year end 12/31/76: $10,625,023

THE COMPANY

- Computerized Automotive Reporting Service, Inc., (CARS) was founded in 1964 by Beverly P. Head, Jr., John A. Williamson (Vice Chairman; President 1964-1976); and James R. Forman, Jr. (lawyer) to provide management information systems with general business applications to automobile dealers. It now offers both remote batch and interactive services.

- In 1976, the company had a record 15% increase in revenues, from $9.2 million in 1975. Net income in the same period increased only 4% from $1.122 million to $1.167 million while net income before extraordinary item rose 28% from $662,479 in 1975 to $846,604 in 1976. Net earnings per share increased 1% from $.70 to $.71 with 1,552,529 shares outstanding. The relatively small increase in net earnings is attributable to the expiration of tax benefits resulting from a net operating loss carry forward (extraordinary item).

- In 1976, $470,000 was invested in research and development and $300,000 was used to purchase new software products.

- CARS's and its affliates' 277 employees are distributed as follows:

Sales & Marketing	28%
Operations	35
Customer Service	22
Administrative	15
	100%

The company plans to increase the field marketing personnel by 25% in 1977.

- Major Competitors are: The Reynolds and Reynolds Co., Automatic Data Processing, and Ford Motor Company. Lessor competition is from Display Data.

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KEY PRODUCTS AND SERVICES

called CARS Package

- CARS has traditionally offered remote batch non-interactive services for automobile dealers. In 1976, CARS developed its new CARSWAY On-Line System which will allow existing CARS products to be offered interactively and also adds some additional services. An outgrowth of the CARS inventory control, it was actively marketed during the Summer 1977 and will be fully operational by year end.

parts Inventory Control

- As of March 1977, approximately 1150 auto dealers were using one or more of the CARS services, with the majority using accounting and inventory services, as shown below (percentages approximate):

Dealership Accounting	45%
Parts Inventory	35
Payroll	11
Lease Accounting	9
	100%

- New business is fairly evenly divided between new users and add-on services for existing users. In 1976, installed services increased 25% and the customer base increased 15% over 1975.

APPLICATIONS CARS services are all industry-specific general business applications; and therefore, are classified as specialty applications.

INDUSTRY MARKETS One hundred percent of CARS services are marketed to automobile dealers, part of the retail distribution industry. Approximately half of the 30,000 U.S. car dealerships are potential customers of CARS. The 45,000 non-automobile U.S. dealerships are also potential customers although CARS is not currently marketing to this segment of the market.

GEOGRAPHIC MARKETS CARS users are fairly evenly distributed throughout the U.S. Additional revenues are generated by an overseas joint venture in Japan. Sales and service personnel are located in approximately 40 of the largest U.S. metropolitan areas. A licensee is in Australia.

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COMPANY HIGHLIGHT/COMPUTERIZED AUTOMOTIVE REPORTING SERVICE, INC.

COMPUTER HARDWARE AND SOFTWARE

- CARS has two IBM 360/65s for processing and two Honeywell HIS 716s for data collection installed in Birmingham, AL. The network uses IN-WATS lines installed in 1974. The terminals, called TCS equipment, are modified Sycor 340 intelligent terminals.
- In May 1977, CARS installed an Amdahl V/6, replacing both IBM 360/65s. The Amdahl system has had five to eight times better throughput than two IBM systems for most jobs.
- CARSWAY uses TI terminals

September 1977
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COMPUTERIZED LODGING SYSTEMS, INC.
3760 Kilroy Airport Way
Third Floor
Long Beach, CA 90806
(213) 988-1100

David Berkus, President
Wholly Owned Subsidiary of
MAI Systems Corporation
Total Employees: 186 (8/91)
Total Revenue, Fiscal Year End
12/31/90: $22,000,000

The Company

Computerized Lodging Systems, Inc. (CLS), founded in 1974, develops and markets turnkey systems for the lodging and hospitality industry. The company is a value-added reseller for NCR, Unisys, MAI, and Hewlett-Packard minicomputers.

- In April 1990, CLS was acquired by MAI Systems Corporation (formerly MAI Basic Four), a $400 million systems integrator and value-added reseller based in Tustin (CA).

- CLS now operates as a wholly owned subsidiary of MAI as MAI's Hospitality Industry business unit.

CLS considers itself to be the largest provider (in terms of revenue) of turnkey systems to the hospitality industry. The company specializes in creating interproperty networks to tie management to its various properties, permitting less on-site management personnel.

- CLS' systems interface to telephone, in-room movie, in-room bar, energy management, point-of-sale, and central reservations systems, and its own yield-management system. Interfaces are being developed to link properties to their banks for automated cash transfers, to their reservations sources via two-way information exchange, and to each other via transparent networks linking central management to properties.

CLS' 1990 revenue reached $22 million, a 5% increase over 1989 revenue of $21 million.

- CLS management states that the company has been profitable for the past 14 years but anticipates that revenues will decline slightly in 1991 due to a sluggish U.S. hotel industry and the disposition of a CLS subsidiary during mid-1991.

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- The company's growth is attributed primarily to capturing a larger share of the hospitality market and to acquisitions made during 1986-1988.

In June 1991, CLS sold its Forms Management, Inc. (FMI) subsidiary to FMI management. FMI, originally acquired by CLS in December 1988, develops, manufactures, and markets computer forms used by the hospitality industry to CLS clients, as well as clients of CLS' competitors.

CLS' LANplex division, originally acquired by CLS in 1987, now operates as a division of MAI. LANplex installs cabling to interconnect computer system and terminals for CLS clients as well as clients in other industries.

CLS has 186 employees, segmented as follows:

Marketing/sales	25
Customer support	106
Research and development	29
General and administrative	26
	186

CLS' major competitor is Logistix (Wichita, KS). Other competitors include Encore Computer Systems and over 100 other, smaller firms that market systems to the hospitality industry.

Key Products and Services

An estimated $19 million of CLS' 1990 revenue was derived from turnkey system sales and support services. The remaining $3 million was derived from forms and cable/hardware sales and installation.

The company's turnkey systems are marketed under the name "CLS" and are available for HP 9000 Series; NCR Tower and 3000 Series 400-850; Unisys 5000 Series; and MAI MPX, SPX, and GPX computers. The software is written in Business BASIC.

- CLS modules are available separately or as an integrated system and include the following:

  - The CLS Property Management System supports front and back office applications, function management, and purchase/inventory analysis.

  - The International PMS System is a property management system with features that support the needs of hoteliers in the world marketplace.

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- The CLS Yield Management System is based on artificial intelligence and continuously examines trends created by reservations activity, looking for opportunities to increase the average rate through the imposition of restrictions on rates and occupancy.
- The CLS Central Reservations System provides hotel groups with centralized management applications.
- CLS Quik-Check supports credit card check-in and check-out.
- The CLS Food and Beverage Manager links properties to their point-of-sale systems for inventory management and sales analysis, and creates a central inventory control for purchasing, requisitioning, inventory, and menu management.

· There are currently over 1,400 CLS systems installed worldwide.

Support services provided by CLS include the following:

· The company provides project planning, project coordination, education and training, and installation services.

· CLS software support includes a 24-hour hotline with remote diagnostic capabilities.

· Hardware maintenance and support is provided by the computer manufacturer.

Industry Markets

Virtually 100% of CLS' revenue is derived from the hospitality industry, including hotels, ski resorts, convention centers, and other central hospitality reservation systems.

Clients include Courtyard by Marriott, Marina Hotels, Atlas Hotels, Sheraton, Quality Inns, and Sonesta International Hotels.

Geographic Markets

Approximately 70% of CLS' 1990 revenue was derived from the U.S. and 30% from international sources.

U.S. offices are located in Long Beach and Oakland (CA), Boston, Chicago, Cincinnati, Dallas, Orlando, and Philadelphia.

International offices are located in Amsterdam, London, Mexico City, Singapore, Malaysia, and Hong Kong.

CLS also markets its products through 25 dealers outside the U.S.

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FINANCIAL UPDATE TO PROFILE DATED JULY 1984*

COMPUTERVISION CORPORATION
100 Crosby Drive
Bedford, MA 01730
(617) 275-1800

Martin Allen, Chairman
Robert L. Gable, President and CEO
Public Corporation, NYSE
Total Employees: 4,800
Total Revenue, Fiscal Year End 12/31/85: $441,137,000

COMPUTERVISION CORPORATION
FIVE-YEAR FINANCIAL SUMMARY
($ thousands, except per share data)

ITEM \ FISCAL YEAR	1985	1984	1983	1982	1981
Revenue	$ 441,137	$ 556,342	$ 400,032	$ 325,185	$ 270,706
. Percent increase (decrease) from previous year	(21%)	39%	23%	20%	42%
Income (loss) before taxes	$ (127,777)	$ 69,726	$ 53,540	$ 49,481	$ 58,748
. Percent increase (decrease) from previous year	(283%)	30%	8%	(16%)	46%
(Loss) from discontinued operation (a)	-	$ (10,000)	-	-	-
Extraordinary gain (b)	-	$ 3,715	-	-	-
Net income (loss)	$ (80,777)	$ 41,441	$ 35,340	$ 32,381	$ 31,763
. Percent increase (decrease) from previous year	(295%)	17%	9%	2%	36%
Earnings (loss) per share	$ (2.82)	$ 1.44	$ 1.24	$ 1.18	$ 1.16
. Percent increase (decrease) from previous year	(296%)	16%	5%	2%	29%

(a) Provision, net of income tax benefits of $10 million, for estimated damages and legal fees in connection with various legal suits including the Perkin-Elmer settlement relating to the company's former Cobilt Division, which was sold in 1981.

*Replaces Financial Update of March 1985

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(b) Gain, net of income taxes of approximately $1.6 million, arising from the sale to Prime Computer, Inc. of a joint ownership interest in Revision 4.06 of the Medusa® application software package. Computervision continues to enhance this software and now markets its own version on a worldwide basis.

- Computervision management attributes revenue declines in 1985 to a reduction in the volume of systems and product sales and competitive pricing pressures. This decrease reflected a sluggish demand in the U.S. for computer-based capital equipment, a lengthening in the selling cycle due to more intensive competition, and a lower level of sales of new products introduced by the company in late 1984 (CDS 3000 and CDS 5000).

  - During 1985 Computervision took actions to reduce expenses and redeploy assets in light of a decline in revenues. These actions included reduction in employment levels, consolidation and reduction of facilities, and reviews of assets including inventory, equipment, and a joint venture investment.

  - Unusual charges of $41.3 million for 1985 included provisions for employee severance payments, anticipated losses on disposal of excess facilities, and adjustment to asset carrying values.

  - Interest expenses for 1985 were $16.2 million compared to $7.2 million in 1984, reflecting higher borrowing levels.

- During 1985 Computervision was reorganized from matrix management to a more centralized structure composed of five primary functional organizations reporting to the Vice Chairman and Chief Operating Officer. The five organizations include:

  - Marketing and North America Sales.
  - International Sales.
  - Worldwide Services.
  - Research and Development.
  - Operations.

- In June 1984 Computervision and Metheus Corporation established a joint venture, Metheus-CV, Inc., to design and develop CAE products for the electronics industry. Computervision made an initial cash investment in the joint venture of $220,000 and advanced it $10 million in the form of a convertible note. As a result of continuing losses, the remaining carrying value of the investment in and advances to the joint venture has been written off. In 1986 Computervision expects to assimilate the activities of the joint venture, including its technology development, into its own operations. After this assimilation, it is expected that the corporate entity, Metheus-CV, Inc., will be dissolved.

- As of December 31, 1985, Computervision had approximately 4,800 employees. As of March 1, 1986, the company had approximately 4,400 employees.

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SOURCE OF REVENUE

- Turnkey CAE/CAD/CAM system sales contributed 68% to Computervision's 1985 revenue. Turnkey-related services and parts contributed 32%. A five-year summary of revenue derived from products and services follows ($ thousands):

	1985	1984	1983	1982	1981
Systems and product sales	$299,193	$446,590	$316,721	$271,805	$236,738
Services/parts sales	141,944	109,752	83,311	53,380	33,968
Total revenue	$441,137	$556,342	$400,032	$325,185	$270,706

- Approximately 42% of Computervision's 1985 revenue was derived from the U.S. and 58% was derived from foreign markets.

NEW PRODUCTS AND SERVICES

- Computervision is adapting its CADDS® 4X software to a new networked open systems environment, referred to as the Genesis product family.
  - These products will be fully compatible with and can be networked to the company's existing CDS 4000 and Designer V-X systems.
- CADDStation/CDS 3000 Systems: This system is an intelligent 32-bit workstation based on the Motorola 68000 series microprocessor and UNIX operating system software. The system can function either as a standalone workstation or a large network of workstations and can be linked by an Ethernet local area network to CDS 4000, Designer, and CDS 5000 systems. The system was developed and is being enhanced and manufactured in conjunction with Sun Microsystems, Inc. CDS 3000 was announced in May 1984 and initial customer shipments began in early December 1984. The system was initially available running third-party applications software. The company has been engaged in porting its CADDS 4X software to a more powerful version of this workstation, and the resulting family of products is to be marketed under the name CADDStation. It is expected that this more powerful system will be available in 1986.
- During 1985 Computervision formed its Personal Systems Business Unit to provide microcomputer-based CAD/CAM systems. The products are based on the IBM PC-XT and PC-AT or equivalent computers and are sold primarily through a network of distributors and by the company's own sales organization. Current offerings include:
  - Personal Designer® .
  - Personal Architect.
  - Personal Engineer™ .
  - Personal Machinist.

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FINANCIAL UPDATE TO PROFILE DATED JULY 1984*

COMPUTERVISION CORPORATION
100 Crosby Drive
Bedford, MA 01730
(617) 275-1800

Martin Allen, Chairman
Robert L. Gable, President and CEO
Public Corporation, NYSE
Total Employees: 4,800
Total Revenue, Fiscal Year End 12/31/85: $441,137,000

COMPUTERVISION CORPORATION
FIVE-YEAR FINANCIAL SUMMARY
($ thousands, except per share data)

ITEM \ FISCAL YEAR	1985	1984	1983	1982	1981
Revenue	$ 441,137	$ 556,342	$ 400,032	$ 325,185	$ 270,706
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Income (loss) before taxes	$ (127,777)	$ 69,726	$ 53,540	$ 49,481	$ 58,748
. Percent increase (decrease) from previous year	(283%)	30%	8%	(16%)	46%
(Loss) from discontinued operation (a)	-	$ (10,000)	-	-	-
Extraordinary gain (b)	-	$ 3,715	-	-	-
Net income (loss)	$ (80,777)	$ 41,441	$ 35,340	$ 32,381	$ 31,763
. Percent increase (decrease) from previous year	(295%)	17%	9%	2%	36%
Earnings (loss) per share	$ (2.82)	$ 1.44	$ 1.24	$ 1.18	$ 1.16
. Percent increase (decrease) from previous year	(296%)	16%	5%	2%	29%

(a) Provision, net of income tax benefits of $10 million, for estimated damages and legal fees in connection with various legal suits including the Perkin-Elmer settlement relating to the company's former Cobilt Division, which was sold in 1981.

*Replaces Financial Update of March 1985

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(b) Gain, net of income taxes of approximately $1.6 million, arising from the sale to Prime Computer, Inc. of a joint ownership interest in Revision 4.06 of the Medusa® application software package. Computervision continues to enhance this software and now markets its own version on a worldwide basis.

- Computervision management attributes revenue declines in 1985 to a reduction in the volume of systems and product sales and competitive pricing pressures. This decrease reflected a sluggish demand in the U.S. for computer-based capital equipment, a lengthening in the selling cycle due to more intensive competition, and a lower level of sales of new products introduced by the company in late 1984 (CDS 3000 and CDS 5000).

  - During 1985 Computervision took actions to reduce expenses and redeploy assets in light of a decline in revenues. These actions included reduction in employment levels, consolidation and reduction of facilities, and reviews of assets including inventory, equipment, and a joint venture investment.

  - Unusual charges of $41.3 million for 1985 included provisions for employee severance payments, anticipated losses on disposal of excess facilities, and adjustment to asset carrying values.

  - Interest expenses for 1985 were $16.2 million compared to $7.2 million in 1984, reflecting higher borrowing levels.

- During 1985 Computervision was reorganized from matrix management to a more centralized structure composed of five primary functional organizations reporting to the Vice Chairman and Chief Operating Officer. The five organizations include:

  - Marketing and North America Sales.
  - International Sales.
  - Worldwide Services.
  - Research and Development.
  - Operations.

- In June 1984 Computervision and Metheus Corporation established a joint venture, Metheus-CV, Inc., to design and develop CAE products for the electronics industry. Computervision made an initial cash investment in the joint venture of $220,000 and advanced it $10 million in the form of a convertible note. As a result of continuing losses, the remaining carrying value of the investment in and advances to the joint venture has been written off. In 1986 Computervision expects to assimilate the activities of the joint venture, including its technology development, into its own operations. After this assimilation, it is expected that the corporate entity, Metheus-CV, Inc., will be dissolved.

- As of December 31, 1985, Computervision had approximately 4,800 employees. As of March 1, 1986, the company had approximately 4,400 employees.

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SOURCE OF REVENUE

- Turnkey CAE/CAD/CAM system sales contributed 68% to Computervision's 1985 revenue. Turnkey-related services and parts contributed 32%. A five-year summary of revenue derived from products and services follows ($ thousands):

	1985	1984	1983	1982	1981
Systems and product sales	$299,193	$446,590	$316,721	$271,805	$236,738
Services/parts sales	141,944	109,752	83,311	53,380	33,968
Total revenue	$441,137	$556,342	$400,032	$325,185	$270,706

- Approximately 42% of Computervision's 1985 revenue was derived from the U.S. and 58% was derived from foreign markets.

NEW PRODUCTS AND SERVICES

- Computervision is adapting its CADDS® 4X software to a new networked open systems environment, referred to as the Genesis product family.

  - These products will be fully compatible with and can be networked to the company's existing CDS 4000 and Designer V-X systems.

- CADDStation/CDS 3000 Systems: This system is an intelligent 32-bit workstation based on the Motorola 68000 series microprocessor and UNIX operating system software. The system can function either as a standalone workstation or a large network of workstations and can be linked by an Ethernet local area network to CDS 4000, Designer, and CDS 5000 systems. The system was developed and is being enhanced and manufactured in conjunction with Sun Microsystems, Inc. CDS 3000 was announced in May 1984 and initial customer shipments began in early December 1984. The system was initially available running third-party applications software. The company has been engaged in porting its CADDS 4X software to a more powerful version of this workstation, and the resulting family of products is to be marketed under the name CADDStation. It is expected that this more powerful system will be available in 1986.

- During 1985 Computervision formed its Personal Systems Business Unit to provide microcomputer-based CAD/CAM systems. The products are based on the IBM PC-XT and PC-AT or equivalent computers and are sold primarily through a network of distributors and by the company's own sales organization. Current offerings include:

  - Personal Designer® .
  - Personal Architect.
  - Personal Engineer™ .
  - Personal Machinist.

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COMPUTERVISION CORPORATION
100 Crosby Drive
Bedford, MA 01730
(617) 275-1800

Martin Allen, Chairman
James R. Berrett, President and CEO
Public Corporation, NYSE
Total Employees: 6,500
Total Revenue, Fiscal Year End
12/31/84: $556,342,000

COMPUTERVISION CORPORATION
FIVE-YEAR FINANCIAL SUMMARY
($ thousands, except per share data)

ITEM \ FISCAL YEAR	1984	1983	1982	1981	1980
Revenue	$556,342	$400,032	$325,185	$270,706	$191,086
. Percent increase from previous year	39%	23%	20%	42%	86%
Income before taxes	$ 69,726	$ 53,540	$ 49,481	$ 58,748	$ 40,264
. Percent increase (decrease) from previous year	30%	8%	(16%)	46%	71%
(Loss) from discontinued operation (a)	$ (10,000)	-	-	-	-
Extraordinary gain (b)	$ 3,715	-	-	-	-
Net income	$ 41,441	$ 35,340	$ 32,381	$ 31,763	$ 23,321
. Percent increase from previous year	17%	9%	2%	36%	80%
Earnings per share	$ 1.44	$ 1.24	$ 1.18	$ 1.16	$ 0.90
. Percent increase from previous year	16%	5%	2%	29%	73%

(a) Provision, net of income tax benefits of $10 million, for estimated damages and legal fees in connection with various legal suits including the Perkin-Elmer settlement relating to the company's former Cobilt Division, which was sold in 1981.

(b) Gain, net of income taxes of approximately $1.6 million, arising from the sale to Prime Computer, Inc. of a joint ownership interest in the Medusa® applications software package.

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SOURCE OF REVENUE

- Turnkey CAE/CAD/CAM system sales contributed 80% to Computervision's 1984 revenue. Turnkey-related services and parts contributed 20%. A five-year summary of revenue derived from products and services follows ($ thousands):

	1984	1983	1982	1981	1980
Systems and product sales	$446,590	$316,721	$271,805	$236,738	$169,531
Services/parts sales	109,752	83,311	53,380	33,968	21,555
Total revenue	$556,342	$400,032	$325,185	$270,706	$191,086

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COMPUTERVISION CORPORATION
201 Burlington Road
Bedford, MA 01730
(617) 275-1800

Martin Allen, Chairman
James R. Berrett, President and CEO
Public Corporation, NYSE
Total Employees: 5,000
Total Revenue, Fiscal Year End
12/31/83: $400,032,000

THE COMPANY

- Computervision Corporation was incorporated in Massachusetts in 1969 and reincorporated in Delaware in 1975. The company designs, manufactures, markets, and services computer-aided engineering, design, and manufacturing (CAE/CAD/CAM) integrated systems worldwide.

- 1983 revenue was $400 million, a 23% increase over 1982 revenue of $325.2 million. Net income rose 9% from $32.4 million in 1982 to $35.3 million in 1983. A five-year financial summary follows:

COMPUTERVISION CORPORATION
FIVE-YEAR FINANCIAL SUMMARY
($ thousands, except per share data)

ITEM \ FISCAL YEAR	1983	1982	1981	1980	1979
Revenue	$ 400,032	$ 325,185	$ 270,706	$ 191,086	$ 103,004
. Percent increase from previous year	23%	20%	42%	86%	113%
Income before taxes	$ 53,540	$ 49,481	$ 58,748	$ 40,264	$ 23,574
. Percent increase (decrease) from previous year	8%	(16%)	46%	71%	157%
Net income	$ 35,340	$ 32,381	$ 31,763	$ 23,321	$ 12,960
. Percent increase from previous year	9%	2%	36%	80%	149%
Earnings per share	$ 1.24	$ 1.18	$ 1.16	$ 0.90	$ 0.52
. Percent increase from previous year	5%	2%	29%	73%	-

- Computervision management attributes revenue growth primarily to increases in the volume of products sold and related services provided. The moderation

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in the annual revenue growth rate in 1983 and 1982 reflected tight capital expenditure budgets of many customers, later-than-planned availability of certain new products (32-bit systems), the impact of the strong U.S. dollar on the company's primarily U.S. dollar-denominated export sales, and the entry of a growing number of new competitors into the CAE/CAD/CAM market.

- Gross profit rates in 1983 declined to 53.6% of revenue from 54.7% in 1982 as a result of competitive pricing pressures. The decrease in the gross profit rate in 1982 to 54.7% from 59.4% in 1981 reflected competitive pressures, a greater proportion of U.S. government business, and capacity-related manufacturing variances.

- Research and development expenditures were $43.7 million (11% of revenue) in 1983, as compared to $36.3 million (11% of revenue) in 1982, and $27.1 million (10% of revenue) in 1981.

- Recent acquisitions made by Computervision include the following:

  - On March 24, 1983, the company acquired Cambridge Interactive Systems Limited (CIS) of Cambridge, England, together with its affiliated marketing organization, Applied Graphics Systems (Europe) BV (AGS) of Rotterdam, Holland, for 767,000 shares of Computervision common stock.

    - The CIS/AGS organization develops and markets software products for mechanical CAD/CAM applications, including MEDUSA®, a mechanical drafting, design, and three-dimensional solids modeling software package.

    - CIS and AGS employed approximately 130 people at the time of the acquisition, which was accounted for as a pooling of interests beginning in 1983. Financial statements of prior records have not been restated since they would not vary significantly from previously reported amounts.

    - CIS and AGS contributed approximately $20 million to Computervision's 1983 revenue. 1982 revenue was approximately $10 million.

    - CIS and AGS now operate as wholly owned subsidiaries.

  - On October 14, 1983, the company purchased all the outstanding shares of Grado Software und Computer Systeme GmbH (Grado) of West Germany in exchange for $4 million in cash and notes.

    - Grado's principal products are printed circuit board software for use in CAD/CAM operations.

    - This acquisition was accounted for as a purchase, and the results of operations are included only from the date of acquisition.

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  - Grado has approximately 20 employees, and it now operates as a wholly owned subsidiary of Computervision.

- On February 14, 1984, the company acquired Organization for Industrial Research, Inc. (OIR) of Waltham (MA) for approximately 180,000 shares of common stock.

  - OIR develops group technology and process planning software products for use in CAD/CAM applications.

  - The acquisition will be treated as a pooling of interests. OIR had 38 employees at the time of the acquisition and 1983 revenue of approximately $5 million.

  - OIR now operates as a wholly owned subsidiary of Computervision.

- Revenue for the six months ending June 30, 1984 was $255.3 million, a 39% increase over $184.4 million for the same period in 1983. Net income for the period rose 38%, from $15.8 million in 1983 to $21.8 million in 1984.

- Computervision is organized into the following units:

  - The Office of the President has three sales and service divisions reporting to it.

    - North America Division: sales and service in the U.S., Canada, Mexico, and the Mideast.

    - CV Europe Division: sales and service in Europe.

    - Americas/Far East Division: sales and service to South America, Australia, Japan, China, Taiwan, Singapore, and Korea.

  - The Operations Division is responsible for worldwide manufacturing activities.

  - The Marketing Division is responsible for marketing and strategic planning.

  - The Technology Division is responsible for research and development.

- Recent agreements/joint ventures announced by Computervision include the following:

  - In June 1984 Computervision and Metheus Corporation of Hillsboro (OR) announced the formation of a joint venture to design and develop electrical CAE/CAD/CAM workstation products for electrical and electronic applications. The venture, Metheus-CV, will be headquartered in Hillsboro, and Metheus will have a majority interest.

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- In February 1984 Computervision and Prime Computer, Inc. announced an agreement under which Prime will purchase joint ownership of Revision Four of the Medusa software package. Effective June 1, 1984, both companies will be able to market the software worldwide.

- In January 1984 Computervision, Invoteck, Inc., and Richard Muther & Associates, Inc. agreed to jointly develop, market, and support space and facilities planning software.

- In August 1983 IBM named Computervision as a value-added remarketer of the IBM 4300 series of computers. Computervision entered into an agreement with IBM to purchase and license selected hardware and software products for integration into a new family of CAE/CAD/CAM product data management systems.

- In August 1983 Computervision concluded a three-year agreement with Sun Microsystems, Inc. of Mountain View (CA), valued at approximately $40 million for the joint development of a family of personal, desktop 32-bit networked engineering workstations.

- As of December 31, 1983, Computervision had approximately 5,000 employees. The company currently has approximately 5,700 employees.

- Major competitors include Applicon, Inc., Calma Company, Intergraph Corporation, IBM, Auto-trol Technology Corporation, DEC, MCAUTO, and Prime Computer Inc.

KEY PRODUCTS AND SERVICES

- Turnkey CAE/CAD/CAM system sales contributed 79% to Computervision's 1983 revenue. Turnkey-related services and parts contributed 21%. A five-year summary of revenue derived from products and services follows ($ thousands):

	1983	1982	1981	1980	1979
Systems and product sales	$316,721	$271,805	$236,738	$169,531	$ 93,363
Services/parts sales	83,311	53,380	33,968	21,555	9,641
Total revenue	$400,032	$325,185	$270,706	$191,086	$103,004

- Computervision management states that in 1983 its installed turnkey systems base reached $1.25 billion, more than double that of its nearest competitor.

- Computervision's CAE/CAD/CAM systems are typically used as follows:

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- By aerospace, automotive, mechanical equipment and machinery, and fabricated materials companies for mechanical analysis, design, drafting, and automated manufacturing.

- By electronics firms for analysis, simulation, design, and automated manufacturing of printed circuits and integrated circuits.

- By architectural and construction firms for facilities layout, space planning, and structural design.

- By energy companies and utilities for plant design and layout.

- By government agencies and private companies for mapping.

- In May 1984 Computervision announced a restructuring of its pricing policies for its systems. Hardware and software components are now priced separately, providing more flexibility for customers in designing systems configurations that meet their exact needs.

- Computervision's CADDS® applications software was developed and enhanced by Computervision for its integrated systems.

  - CADDS 4X, introduced in August 1983, is a family of three-dimensional interactive graphics software with multi-user and multi-application capabilities. It is the most recent upgrade and offers the following application modules:

    . Mechanical Design and Drafting.

      - Finite Element Modeling and Analysis.
      - Advanced Surface Design T.M. .
      - Solidesign T.M. , solids modeling.
      - Imagedesign T.M. , shaded surfaces.

    . Electronic Design.

      - CVSPICE, for circuit analysis.
      - PC Design Autoplacement® .
      - Electrical Schematic Design-Rules Checking.
      - PC Design Autoroute® .
      - Fine Line Router.
      - IC Layout.

    . Architecture, Engineering, and Construction.

      - Plant Design, Plant and Piping Design Analysis.
      - Building Design and Management.
      - Mapping.
      - HVAC, (Heating, Ventilation, and Air Conditioning).
      - Site Engineering.

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- Steel Detailing.
- Visualization.
- Area Information Management.

. Computer-Integrated Manufacturing.

- Robographix T.M., robot program design and simulation.
- NC Vision T.M., graphic NC programming.
- CV Migraphics T.M., parts design coding.
- CV Miplan T.M., process plan generation and retrieval.
- Dynanest T.M., nesting varying shaped parts on material sheets of any shape or size.
- Autopunch T.M., automated sheet metal punching.
- Autonest T.M., nesting on sheet metal.
- CAMACS T.M., (CAM Asynchronous Communications Software).

. CADDS 4X permits full three-dimensional wireframe and parameterized surface capabilities.

• Designer® integrated CAD/CAM systems are based on Computervision's proprietary Computervision Graphics Processor (CGP®), the first central processing unit designed exclusively for CAD/CAM applications.

- A Designer system typically includes a CGP 16-bit minicomputer and one or more of the following products:

  . Computervision's Instaview® interactive graphics workstation.
  . Interact T.M. digitizers/plotters, P-1000 plotters, or freestanding digitizers.
  . Compucircuit® photo-plotters.
  . Computervision Graphics Operating System (CGOS).
  . One or more CADDS 4X applications software modules.
  . Interfaces are available for many industry standard devices including plotters, pattern generators, numerically controlled manufacturing equipment, robots, automated test equipment, and other intelligent production "machines."

- The Designer V-X system, introduced in August 1983, uses the CGP-200X processor and supports CADDS 4X software (except Solidesign and Imagedesign applications).

  . Design V-X is Computervision's highest performance Designer system, upgrading the CADDS 4/Designer V system with faster response times.

  . The system uses the Instaview color, high resolution raster-scan-based interactive graphics workstation and supports up to eight users.

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  - A total system averages $300,000 to $400,000.

- During 1984 Computervision announced the Designer V-X Series M system as a replacement to its Designer M family of entry levels medium-scale CAD/CAM systems.
  - The Designer V-X Series M uses the CGP-200X processor and supports CADDS 4X software available to the Designer V-X.
  - The system supports up to three interactive graphic tasks and has communications access capabilities to CDS systems.
  - The system is upgradable to a Designer V-X.
  - The system is priced from $170,000 and averages $200,000 to $250,000.

- During 1983 Computervision announced its plans to develop and market a new series of CAE/CAD/CAM integrated systems, the Computervision Distributed Systems (CDS) family of products.
  - In August 1983 the company introduced the CDS 4000, the first system in the CDS family.
    - The system employs a 32-bit processor, designed for computationally intensive tasks such as image processing and engineering.
    - Up to three interactive processing units act as a systems manager and graphics display processor.
    - CDS 4000 employs a single, centralized, fully integrated data base, so that all users, regardless of function, can access and work with the most current product information.
    - CDS 4000 uses CADDS 4X software applications and also provides access to third-party software via the ANSI standard FORTRAN 77 and PASCAL compilers written for the 32-bit CPU's proprietary virtual memory operating system, CVMOS.
    - Interactive support is available for up to 26 users simultaneously, with as many as 16 users performing graphics-based applications.
    - Revision 2, announced in May 1984, features CDS/M, Ethernet-based proprietary communications capabilities. CDS/M permits high-speed communications between CDS 4000, Designer V-X, and the new CDS 5000 system.

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- CDS 4000 base prices in the U.S., without workstations and software, start at $250,000. Volume shipments will start in July 1984.

- In May 1984 Computervision announced the CDS 5000, an IBM 4300-series-based CAE/CAD/CAM system that is geared to storing and managing graphics information and engineering data for large-scale installations.

  - The Computervision Distributed Systems Resource (CDS-R) is the heart of the system and comprises a 4300 processor, a bus control unit, the VM/CMS operating system, systems and utilities software, and communications interfaces.

  - Computervision's CDS 4000 and Designer V-X systems can be integrated with CDS-R in a node configuration.

  - Data management functions are handled through the SQL/DS relational data base management system.

  - Product Data Manager (PDM), a special CDS 5000 utility, provides a central library of engineering and manufacturing information. It stores part files, procedures and specifications, applications software, libraries, on-line documentation, and data files. PDM functions include part- and drawing-revision control, security, recovery management, and archiving.

  - CDS 5000 supports CADDS 4X software and offers additional capabilities for decision support.

  - Three versions of the CDS 5000 will be offered. The CDS 5010 will be based on an IBM 4331 and will support three nodes; the CDS 5020 and CDS 5030 will be based on a 4361 processor and will support five and eight nodes, respectively.

  - Volume shipments of the CDS 5000 will begin in the fourth quarter of 1984. Base prices for the CDS-R will range from $485,000 to $650,000.

- In May 1984 Computervision announced the CDS 3000 series of 32-bit intelligent workstations for standalone as well as for networked design and engineering applications.

  - The CDS 3000 series is built around technology acquired through an agreement with Sun Microsystems, Inc. Based on the Motorola 68010 microprocessor, the system runs a version of the UNIX operating system enhanced by Computervision for CAE/CAD/CAM applications.

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- The system can communicate with other CDS 3000 workstations, other CDS systems, and with mainframes through industry-standard protocols. Using the CDS 3900 Shared Resource Manager and Ethernet local area networking software, the workstations can be clustered in multiple-user networks.

- CDS 3000 users can log onto a Computervision Designer V-X or CDS 4000 system through point-to-point or modem connections and access, display, and manipulate all CADDS commands, files, and data bases maintained on the Computervision host system.

- Applications supported by the CDS 3000 include the following:

  - Tech Pubs/3000, a computer-aided publishing package.
  - Schematic Capture/3000, for electrical schematic capture.
  - Logic Design Simulation/3000, for electrical logic simulation, timing analysis, functional modeling, and fault analysis.
  - Drafting/3000, a two-dimensional mechanical design and drafting package.
  - Factoryvision$^{T.M.}$/3000, for distribution and management of part files and drawings information to production areas.
  - Spaceplan$^{T.M.}$/3000, for architectural space planning and facilities management.

- The CDS 3000 systems range in price in the U.S. from $35,000 to $52,000 and will begin volume production in the fourth quarter.

- In July 1984 Computervision announced it will market MEDUSA® software as part of an integrated DEC VAX-based system.

  - MEDUSA, an integrated software system for two-dimensional design, drafting, and dimensioning, and for three-dimensional solid modeling, was developed by Cambridge Interactive Systems Ltd. (CIS). MEDUSA will continue to be developed and enhanced by CIS.

  - Computervision also announced the MWS (MEDUSA Workstation Series) 3400 workstation which incorporates Motorola 68010, 32-bit microprocessor technology and a UNIX operating system.

  - The integrated system, called the MEDUSA System, uses a DEC VAX computer, MEDUSA software, MWS 3400 workstations, MWS 3900 Shared Resource Manager (SRM), and peripherals.

    - Several configurations offering varying levels of capabilities are available.

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  - A basic MEDUSA System, supporting six users, is $460,000 and includes a VAX 11/750, six MWS 3410 workstations, one MWS 3911 SRM, and license for standard MEDUSA software.

- Computervision will also sell the MEDUSA software and workstations as add-ons to existing VAX installations.

  - List price of the MEDUSA software for existing higher-end VAX installations ranges from $10,000 to $15,000 per workstation.

  - The MWS 3400 workstations are priced from $36,000 to $47,000.

- In November 1983 the U.S. Navy announced it had modified its computer-aided engineering and documentation systems contract with Computervision (October 1981) to add additional workstations, maintenance, and support services.

  - These modifications will increase the contract value from $62.9 million to $99.9 million. It allows initial shipments to begin immediately and continue to 1985. Service and support activities will be supplied over a six-year period.

  - The Computervision systems will be used by various U.S. Navy units including NAVAIR, NAVSEA, NAVFAC, and the Naval Material Command Research and Development Laboratories.

INDUSTRY MARKETS

- Computervision markets its CAE/CAD/CAM systems primarily to the aerospace, architectural, automotive, civil engineering, electronics, energy, metalworking, and transportation industries, as well as to mapping firms, utilities, and various government agencies.

GEOGRAPHIC MARKETS

- A three-year summary of source of revenue follows ($ millions):

	1983		1982		1981	
	Revenue	Percent of Total	Revenue	Percent of Total	Revenue	Percent of Total
U.S.	$264.8	66%	$203.1	62%	$163.6	60%
Europe	95.8	24	89.7	28	83.4	31
Other	39.4	10	32.4	10	23.7	9
Total	$400.0	100%	$325.2	100%	$270.7	100%

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- Computervision markets and services its products in the U.S. through its own sales and field service organization and, outside the U.S., through its wholly owned foreign sales and service subsidiaries as well as through manufacturers, representatives, and distributors.

- U.S. regional offices are located in Culver City (CA), Arlington Heights (IL), Edison (NJ), and Irving (TX). Sales and service offices are located across the U.S. in major market areas.

- Principal international offices are lcoated in Argentina, Australia, Austria, Belgium, Brazil, Canada, Denmark, England, Finland, France, Hong Kong, Italy, Japan, the Netherlands, Norway, Spain, Sweden, Switzerland, and West Germany.

- Computervision currently has over 80 major sales and service facilities worldwide.

COMPUTER HARDWARE AND SOFTWARE

- Computervision has a variety of computers installed for research and development and software testing, including its Designer and CDS systems and IBM and DEC computers.

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COMPUTERVISION CORPORATION
201 Burlington Road
Bedford, MA 01730
(617) 275-1800

Martin Allen, Chairman
James R. Berrett, President
Public Corporation, NYSE
Total Employees: 4,140
Total Revenue, Fiscal Year End 12/31/82: $325,185,000

COMPUTERVISION CORPORATION
FIVE-YEAR FINANCIAL SUMMARY

ITEM \ FISCAL YEAR	1982	1981	1980	1979	1978
Revenue	$ 325,185	$ 270,706	$ 191,086	$ 103,004	$ 48,432
. Percent increase from previous year	20%	42%	86%	113%	72%
Income before taxes (a)	$ 49,481	$ 58,748	$ 40,264	$ 23,574	$ 9,181
. Percent increase (decrease) from previous year	(16%)	46%	71%	157%	239%
Net income	$ 32,381	$ 31,763	$ 23,321	$ 12,960	$ 5,212
. Percent increase from previous year	2%	36%	80%	149%	90%
Earnings per share	$ 1.18	$ 1.16	$ 0.90	$ 0.52	N/A
. Percent increase from previous year	2%	29%	73%	-	

(a) From continuing operations

SOURCE OF REVENUE

- Turnkey systems sales contributed 84% of 1982 revenue. Turnkey-related services and parts contributed 16%. A five-year summary of revenue derived from products and services follows ($ thousands):

ITEM \ FISCAL YEAR	1982	1981	1980	1979	1978
Systems and product sales	$ 271,805	$ 236,738	$ 169,531	$ 93,363	$ 42,341
Services/parts sales	53,380	33,968	21,555	9,641	6,091
Total revenue	$ 325,185	$ 270,706	$ 191,086	$ 103,004	$ 48,432

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COMPUTERVISION CORPORATION
201 Burlington Road
Bedford, MA 01730
(617) 275-1800

Martin Allen, Chairman and President
Public Corporation, NYSE
Total Employees: 3,800
Total Revenue, Fiscal Year End
12/31/81: $270,706,000

THE COMPANY

- Computervision Corporation was incorporated in Massachusetts in 1969 and reincorporated in Delaware in 1975. The company designs, manufactures, markets, and services computer-aided design and manufacturing (CAD/CAM) products.

- Revenue rose from $191.1 million in 1980 to $270.7 million in 1981, a 42% increase. Net income grew 36% from $23.3 million in 1980 to $31.8 million in 1981. A five-year financial summary follows:

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COMPUTERVISION CORPORATION
FIVE-YEAR FINANCIAL SUMMARY
($ thousands, except per share date)

ITEM \ FISCAL YEAR	1981	1980	1979	1978	1977
Revenue	$270,706	$191,086	$103,004	$ 48,432	$ 28,188
. Percent increase from previous year	42%	86%	113%	72%	N/A
Income from continuing operations before taxes	$ 58,748	$ 40,264	$ 23,574	$ 9,181	$ 2,712
. Percent increase from previous year	46%	71%	157%	239%	N/A
Income from continuing operations after taxes	$ 35,748	$ 23,464	$ 12,874	$ 4,811	$ 1,992
. Percent increase from previous year	52%	82%	168%	142%	N/A
Income (loss) from discontinued operation	$ (3,985)	$ (143)	$ 86	$ 401	$ 749
Net income	$ 31,763	$ 23,321	$ 12,960	$ 5,212	$ 2,741
. Percent increase from previous year	36%	80%	149%	90%	N/A
Earnings per share from continuing operations*	$ 1.30	$ 0.91	$ 0.52	$ 0.24	$ 0.10
. Percent increase from previous year	43%	75%	117%	140%	N/A
Earnings per share*	$ 1.16	$ 0.90	$ 0.52	N/A	N/A
. Percent increase from previous year	29%	73%			

*Restated to reflect two-for-one stock splits in 1981, 1980, and 1979.

- In 1981 Computervision sold its Cobilt Division. The above financials have been reclassified to segregate the results of the discontinued segment and estimated loss on its sale. Revenue figures represent continuing operations only. The sale of Cobilt adversely affected Computervision's net income and earnings per share.

  - The Cobilt division, which manufactured and marketed contact mask aligners, wafer processors, and wafer testers for the semiconductor industry, was sold to Applied Materials, Inc. of Santa Clara (CA) in May 1981, for $14 million in cash and notes.

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- Revenue growth was down in 1981 as a result of the recession and high interest rates.

- Expenditures for research and development were $27.3 million in 1981 and $18.9 million in 1980, representing 10% of total revenue in each year.

- Computervision added 456,000 square feet to its facilities in 1981. Capital expenditures are expected to reach over $50 million in 1982. Completion of a new administrative, research, and development facility in Bedford (MA) is scheduled. The firm's first European manufacturing facility will be built in Germany during 1982.

- Revenue for the first six months of 1982 was $163.9 million, up 31% over $125 million in 1981. Income from continuing operations was $18.3 million, as compared with $17.3 million for the same period in 1981.

- In February 1981, Computervision was reorganized into the following units:

  - CAD/CAM Business Division: strategic and marketing planning.

  - Operations Division: worldwide production activities.

  - Systems Technology Division: research and development.

  - North America Division: sales and service in North America.

  - Europe Division: sales and service in Europe.

  - Americas/Far East: sales and service department for Latin America, Australia, Japan, and the rest of the world. The department is expected to grow into division status in the future.

- The company has 16 subsidiaries which market and service its products in foreign countries.

- Computervision had 3,800 employees as of December 1981, and approximately 4,300 employees in mid-1982.

- Major competitors include Applicon, Auto-trol Technology, Calma, Intergraph, and IBM.

KEY PRODUCTS AND SERVICES

- Turnkey CAD/CAM systems sales contributed 87% of 1981 revenue. Turnkey-related customer services contributed 13%. A five-year summary of revenue derived from products and services follows ($ thousands):

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ITEM \ FISCAL YEAR	1981	1980	1979	1978	1977
Systems and product sales	$236,738	$169,531	$ 93,363	$42,341	$24,361
Services	33,968	21,555	9,641	6,091	3,827
Total revenue	$270,706	$191,086	$103,004	$48,432	$28,188

- Computervision designs and manufactures all hardware used in its turnkey systems except disk and storage devices, some plotters, and other peripherals.

- Computervision markets its CAD/CAM systems under the name Designer[T.M.].

  - A Designer system typically includes the company's CGP[T.M.]-100 or CGP[T.M.]-200 16-bit minicomputer and one or more of the following products:

    - Instaview[T.M.] (monochrome) or Instaview C (color) interactive graphics workstations.
    - Interact[T.M.] digitizer/plotters, P-1000 plotters, or Instaview D digitizer.
    - Compucircuit® photo-plotters.
    - Computervision Graphics Operating System.
    - One or more applications software packages.

  - Interfaces are available for many industry standard devices including plotters, pattern generators, numerical control manufacturing machines, robots, and coordinate measurement machines.

  - The Designer IV System, using the CGP-100 minicomputer, was introduced in 1977. CGP was the first central processing unit designed exclusively for CAD/CAM applications. It supports CADDS® 2 (integrated circuit design) and CADDS® 3 software.

    - CADDS 3 is a family of applications which provide three-dimensional interactive graphics. Modules include:

      - CADDS 3/PC for printed circuit design.
      - CADDS 3/ES for electrical schematic applications.
      - CADDS 3/MD for two- and three-dimensional mechanical design.
      - CADDS 3/NC for numerically controlled manufacturing.
      - CADDS 3/MAPPING for surveying and mapping.
      - CADDS 3/PIPING for piping layout.
      - CADDS 3 for architectural design.
      - CADDS 3 for structural engineering design.
      - CADDS 3/Engineering Cartography for mapping and resource management.

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- In 1980, the Designer V system was introduced, using the CGP-200, a more powerful distributed processing minicomputer. Designer V features a raster scan display terminal, and supports CADDS® 4 software.

  . CADDS 4 applications are designed to take advantage of raster refresh capabilities, and are available in the same modules offered for CADDS 3.

- Other applications available for Designer IV or Designer V systems include:

  . Viewports, which allows an unlimited number of views of a three-dimensional object.

  . Data Extract, a data base management system that generates user-defined reports.

  . Graphics Network Architecture (GNA), which unifies multiple graphics processors and their workstations into a network.

  . CVNET, a communications package that allows multiple remote CV installations to communicate with each other. Communications with mainframes such as the IBM 360/370, UNIVAC 1100 Series, and Honeywell 6000 Series are provided.

  . Hidden Line, which automatically suppresses portions of an object obscured from a particular eye position.

  . AUTOROUTE, a combination of Designer hardware and CADDS 3 and CADDS 4 software modules, which provides interactive graphics for automated signal routing on printed circuit boards. AUTOROUTE can also be used for other applications with similar logical and graphic characteristics, such as design of piping system and placement of air conditioning ducts.

- Designer IV system prices start at $300,000. Pricing for Designer V systems begins at $350,000.

- Most customers purchase Computervision systems, but they may be leased from third-party lessors as well.

- In November 1981, the Designer M family of medium-scale CAD/CAM systems was introduced. There are three versions, designed for smaller organizations that cannot justify the cost of a larger CAD/CAM system. Series 20 runs CADDS 2 software, Series 30 runs CADDS 3, and Series 40 runs CADDS 4.

  - Designer M systems use new 16-bit minicomputers and raster scan display terminals. Series 20 and Series 30 include a CGP-80 graphics processor. Series 40 includes the larger CGP-180 processor.

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- Designer M prices start at $100,000.

- Designer M systems may be networked with other Computervision systems and can be upgraded to Designer IV or V models.

- In October 1981, Computervision received a $62.9 million, eight-year contract with the U.S. Navy. The company will install interconnected CAD/CAM systems at 11 Naval Material Command Research and Development Laboratories located throughout the U.S.

- In late 1981, Minigraph, a division of Design Graphics, Inc., received exclusive rights to offer Computervision's Designer M systems as local workstations for a nationwide CAD/CAM processing network it is establishing. Software will come primarily from Design Graphics' library of CAD/CAM applications, which have been designed exclusively for Computervision systems. Final processing and hard copy preparation will be done at Minigraph processing facilities.

- In late 1981, Computervision announced 38 new products and enhancements scheduled for introduction in 1982 and 1983. These include:

  - Analytic Processing Unit (APU)$^{T.M.}$, a 32-bit processor which can be integrated with new or existing Designer V systems. The APU expands CAD/CAM capabilities into interactive engineering analysis and automated design techniques. APU will be released in the second half of 1982.

  - Solidesign$^{T.M.}$ Integrated Solid Modeler software which enables Designer V/APU users to use complex solids interactively throughout the design process.

  - CGP-200X Graphics Processor, featuring expanded memory, increased disk channel bandwidth, remote diagnostic capability, expanded CPU microcode, and increased on-line disk capacity.

  - DCU$^{T.M.}$ Display Control Unit, an enhancement to Instaview and Instaview C workstations offering improved resolution and a palette of more than 1,000 colors.

  - CADDS 4/Plant Design for plant and piping design analysis.

  - An enhanced version of CADDS 2/VLSI, an integrated circuit design package for very large-scale integration.

INDUSTRY MARKETS

- Industries served include electronics, aerospace, automotive, communications, construction, energy, mapping, metal working and piping, utilities, and government agencies.

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GEOGRAPHIC MARKETS

- Revenue is segmented as follows:

U.S.	54%
Europe	37
Other international	9
	100%

- Computervision's sales in Japan are growing approximately 100% per year. The company is increasing its Japanese staff, and has recently opened repair facilities there.

- U.S. regional offices are located in Culver City (CA), Arlington Heights (IL), Iselin (NJ), and Irving (TX). Sales and service offices are located in all major market areas.

- International regional offices are located in Argentina, Australia, Belgium, Brazil, Canada, England, France, Hong Kong, Italy, Japan, The Netherlands, Norway, Spain, Sweden, Switzerland, and West Germany.

- Computervision currently has 55 sales and service facilities worldwide.

COMPUTER HARDWARE AND SOFTWARE

- Computervision uses its CGP-100 and CGP-200 minicomputers for testing software. The minicomputers operate under the Computervision Graphics Operating System.

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COMPANY HIGHLIGHT

COMPUTERVISION CORPORATION
201 Burlington Road, Route 62
Bedford, MA 01730
(617) 275-1800

Martin Allen, President
Public Corporation, NYSE
Total Employees: 2,560
Total Revenues Fiscal Year End
12/31/79: $131,550,000
Total Computer Services Revenues:
$103,004,000

THE COMPANY

- Computervision Corporation (CV) was originally incorporated in Massachusetts in 1969; it was reincorporated in Delaware in 1975. Together with its subsidiaries, CV engages primarily in the design, development, manufacture and marketing of computer-controlled design automation, manufacturing automation and production automation products. These products, both hardware and software, enable users to automate certain repetitive design and manufacturing processes that are generally performed manually with conventional equipment.

- Computervision's revenues rose 84% to $131.6 million in 1979, reflecting the increase in worldwide demand for the company's products. Sales derived from CAD/CAM systems and product sales increased 113% in 1979, as Computervision continued to maintain the dominant position in this market. Semiconductor production automation product revenues were 23% higher in 1979. Five years of financial data follow:

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COMPUTERVISION
FIVE-YEAR FINANCIAL SUMMARY
($ Thousands, Except Per Share Data)

ITEM \ FISCAL YEAR	1979	1978	1977	1976	1975
Revenues	$131,550	$71,601	$46,381	$33,555	$21,645
. Percent increase from previous year	84%	54%	38%	55%	--
Income before taxes and extraordinary item	$23,560	$ 9,132	$ 4,076	$ 1,866	$(6,057)
. Percent increase from previous year	158%	124%	118%	N/A	--
Net income (loss)	$12,960	$ 5,212	$ 2,741	$ 1,729	$(4,134)
. Percent increase from previous year	149%	90%	59%	N/A	--
Earnings per share (loss)	$ 2.09	$ 1.03 (a)	$ 0.57	$ 0.37	$ (0.89)
. Percent increase from previous year	103%	81%	54%	N/A	--

(a) Restated to reflect the two-for-one stock split in June 1979

- Expenditures for research and product and software development were approximately $11.5 million for fiscal 1979, as compared with $6 million for the previous year. R&D activities are focused on developing new proprietary applications that appeal to an increasingly large and diversified customer base.

- Two-for-one stock splits occurred on June 22, 1979, and again on August 4, 1980.

- Revenues of $101 million for the six-month period ending June 30, 1980, were up 80% over equivalent 1979 figures. Strong sales were achieved in both the CAD/CAM and semiconductor business segments.

- With the demand for increased productivity and shorter product life cycles provided by CAD/CAM systems, INPUT estimates Computervision's 1980 revenues will be between $235-245 million.

- Computervision's operations are separated into two divisions:

  - Productivity Systems Division, previously known as the Computer Aided Design and Manufacturing Division, develops and manufactures products for automating design processes. Products include those for electrical

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and electronic circuits and wiring systems, mechanical components and systems maps, drafting, piping layouts and architectural design. An estimated 1,900 persons are employed by this division.

- Cobilt Division is engaged in the business of designing, manufacturing, selling and servicing a wide variety of products for use in the automated mass production of semiconductor components, principally integrated circuits and, to a lesser extent, thin-film and hybrid circuits. Cobilt employees number approximately 550.

- In June 1979, North American Philips Corporation terminated acquisition proceedings with Computervision for its Cobilt Division. Computervision had decided to sell its Cobilt Division in order to devote its resources to meeting the demands of the rapidly growing CAD/CAM market. No further activity regarding the sale of the Cobilt Division has been announced.

- In January 1980, the company announced the purchase of a new production facility for the Productivity Systems Division in Manchester, New Hampshire. The facility should be fully operational by year-end 1980, and will supplement existing facilities in Bedford, Massachusetts.

- Major competitors to Computervision in the CAD/CAM market include Applicon, Inc., Auto-Trol Technology Corporation, Calma Company, IBM and M & S Computing.

- The following are considered to be the company's major strengths:

  - Computervision manufactures all critical elements in its systems, and is the most vertically integrated supplier of CAD/CAM systems in the industry.

  - The diversity and scope of Computervision's software products provide the company with a key competitive advantage.

  - The company has the largest funded research and development effort in the CAD/CAM market.

  - Computervision's installed base is an estimated 50% larger than its closest competitor.

KEY PRODUCTS AND SERVICES

- The Productivity Systems Division contributed over 78% of Computervision's consolidated 1979 revenues, and approximately 85% of revenues for the six-month period ending June 30, 1980. This division is responsible for the development and marketing of a line of CAD/CAM systems sold under the name Designer™. Designer is a turnkey minicomputer system sold with proprietary software and specialized interactive graphics terminals. Price of the systems generally range from $250,000 to $500,000, with some systems

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reaching $800,000. Systems are normally purchased, rather than leased, by customers.

- The Designer System typically includes the company's CGP™-100 or CGP™-200 minicomputer and one or more of the following products:
  - Interactive CRT design consoles.
  - Interact™ digitizer/plotters.
  - Free-standing digitizers.
  - Compucircuit® photo-plotters.
  - Computervision Graphics Operating System.
  - One or more applications software packages.
- Computervision designs and manufactures all of its hardware except disk and tape storage devices, CRT screens, some plotters and other peripheral devices from different manufacturers.
- The Designer System, using the CGP-100 minicomputer, was introduced in late 1977. Management claims it is the first computer designed specifically for interactive graphics applications.
- Announced in October 1979, the Designer V System includes the new CGP-200 distributed processing minicomputer, Instaview raster scan display terminal and CADDS 4 software package. These features permit increased response time as compared with previous systems. Shipments of the new system began in June of 1980.
- CV applications software packages are sold only in combination with Designer System hardware as a turnkey system. The software includes CADDS 3, CADDS 4, Viewports, Data Extract, CVNET, Hidden Line and AUTOROUTE.
  - CADDS 3 is a family of applications software that provides three-dimensional interactive graphics. Specific modules include:
    - CADDS 3/PC for printed circuit design.
    - CADDS 3/ES for electrical schematic applications.
    - CADDS 3/MD for two-dimensional and three-dimensional mechanical design.
    - CADDS 3/NC for numerically controlled manufacturing.
    - CADDS 3/MAPPING for survey and mapping.

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  - . CADDS 3/PIPING for piping layout.
  - . CADDS 2/IC for integrated circuit design.
  - . CADDS 3 for architectural design.
  - . CADDS 3 for structural engineering design.

- CADDS 4 is a software package designed to take advantage of raster refresh capabilities, available in the same modules offered for CADDS 3.
- Viewports allows an unlimited number of views of a three-dimensional object.
- Data Extract is a data base management system that generates user-defined reports.
- CVNET is a communications package that allows multiple remote CV installations to communicate with each other.
- Hidden Line automatically suppresses portions of an object obscured from a particular eye position.
- AUTOROUTE, a combination of Designer hardware and CADDS 3 software modules, provides interactive graphics for automated signal routing on printed circuit boards. AUTOROUTE can also be used for other applications with similar logical and graphic characteristics, such as design of piping system and placement of air conditioning ducts.

- The Cobilt Division contributed approximately 22% of total company revenues in 1979. The division offers production automation products used in integrated circuit and thin film circuit production and testing. These products include a family of automated and manual contact mask aligners, wafer processors and wafer testers.

INDUSTRY MARKETS

- Percentages of total revenues for fiscal 1979 were generated primarily by the manufacturing industry as shown by the following estimates:

- Manufacturing		95%
Discrete	85%	
Process	10	
- Government		5
Federal	2	
State and local	3	
		100%

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- CV's CAD/CAM systems are purchased primarily by the electronics, aircraft, aerospace and automotive industries. Customers also include the communications, construction, energy, mapping, metal working and piping industries, as well as various governmental agencies and public utilities.

GEOGRAPHIC MARKETS

- Computervision revenues are derived from both domestic and international sales. Sixty-three percent of revenues stemmed from domestic clients distributed over the entire U.S. Sales by CV's foreign subsidiaries constituted approximately 37% of total sales, primarily within Western Europe and Japan.

  - An estimated 45% of 1979 sales in the Productivity Systems Division result from foreign markets.

- Branch offices are located in:

  - Los Angeles, Santa Clara and Sunnyvale (CA); Lakewood (CO); Daytona (FL); Chicago (IL); Severna Park (MD); Lexington (MA); Wixom (MI); Stillwater (MN); North Brunswick (NJ); Rochester (NY); Brunswick and Columbus (OH); Dallas (TX); Seattle (WA); and Onalaska (WI).

- International offices include: Australia, Belgium, Canada, England, France, India, Israel, Italy, Japan, Korea, Mexico, Netherlands, Sweden, Taiwan and West Germany.

COMPUTER HARDWARE AND SOFTWARE CV uses its CGP-100 and CGP-200 minicomputers, part of the Designer System line, for testing software. The minicomputers operate under the Computervision Graphics Operating System.

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COMPANY HIGHLIGHT

COMPUTERVISION CORPORATION
201 Burlington Road, Route 62
Bedford, MA 01730
(617) 275-1800

Martin Allen, President
Public Corporation, NYSE
Total employees: 1,530
Total Revenues Fiscal Year End:
12/31/78: $71,601,000
Total Computer Services Revenues:
$48,432,000

THE COMPANY

- Computervision Corporation (CV) was originally incorporated in Massachusetts in 1969; it was reincorporated in Delaware in 1975. Together with its subsidiaries, CV engages primarily in design, development, manufacture, and marketing of computer-controlled design automation, manufacturing automation, and production automation products. These products, both hardware and software, enable users to automate certain repetitive design and manufacturing processes which generally are performed manually with conventional equipment.

- Sales in 1978 were 54% higher than 1977, reflecting a record demand for most of the company's products. Sales of CAD/CAM systems and products increased by 72% and sales of semiconductor production automation products rose by 27% in 1978. A five year summary of the company's financial position follows:

FIVE YEAR FINANCIAL SUMMARY, COMPUTERVISION
($ Thousands)

ITEM \ FISCAL YEAR	1978	1977	1976	1975	1974
Total revenues	$71,601	$46,381	$33,555	$21,645	$25,222
Income (loss) before extraordinary items	5,212	2,741	1,070	(4,134)	1,636
Net income (loss)	5,212	2,741	1,729	(4,134)	1,636

- Expenditures for research and development were approximately $6 million for fiscal 1978. Over $4 million was expended for research and development during fiscal 1977. R & D activities are focused on developing new proprietary applications for manufacturers.

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- Computervision's operations are separated into two divisions:
  - Productivity Systems Division, previously known as the Computer Aided Design and Manufacturing Division, develops and manufactures products for automating design processes. Products include those for electrical and electronic circuits and wiring systems, mechanical components and systems maps, drafting, piping layouts and architectural design.
  - Cobilt Division is engaged in the business of designing, manufacturing, selling, and servicing a wide variety of products for use in the automated mass production of semiconductor components, principally integrated circuits and to a lesser extent, thin-film and hybid circuits.

KEY PRODUCTS AND SERVICES

- The Productivity Systems Division currently contributes over 67% of Computervision's consolidated revenues. This division is responsible for the development and marketing of a line of CAD/CAM systems sold under the name Designer. Designer is a turnkey minicomputer system sold with proprietary software and specialized interactive graphics terminals.

- The minicomputer used in the Designer system, a CGP^{TM}-100, is manufactured by Computervision. Introduced in late 1977, management claims it is the first computer designed specifically for interactive graphics applications. Over 300 CGP-100s have been delivered to date. Price of the product ranges from $200,000 to $800,000.

- In 1978, the Productivity Systems Division introduced a new operating system for the CGP-100 called Computervision Graphics Operating System. The new operating system makes it possible for other application software to take full advantage of the graphics-oriented hardware features and capabilities incorporated in the CGP-100.

- CV applications software packages are sold only in combination with Designer System hardware as a turnkey system. The software includes CADDS 3, Viewports, Data Extract, CVNET, Hidden Line, and AUTOROUTE.
  - CADDS 3 is a family of application software that provides three dimensional interactive graphics. Specific modules include:
    - CADDS 3/PC for printed circuit design.
    - CADDS 3/ES for electrical schematic applications.
    - CADDS 3/MD for two-dimensional and three-dimensional mechanical design.

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  - . CADDS 3/NC for numerically controlled manufacturing.
  - . CADDS 3/MAPPING for surveying and mapping.
  - . CADDS 3/PIPING for piping layout.
  - . CADDS 2/IC for integrated circuit design.
  - . CADDS 3 for architectural design.
  - . CADDS 3 for structural engineering design.
- Viewports allows up to 16 different views of a three-dimensional object.
- Data Extract is a data base management system that generates user-defined reports.
- CVNET is a communications package which allows multiple remote CV installations to communicate with each other.
- Hidden Line automatically suppresses portions of an object obscured from a particular eye position.
- AUTOROUTE, a combination of Designer hardware and CADDS 3 software modules, provides interactive graphics for automated signal routing on printed circuit boards. AUTOROUTE can also be used for other applications with similar logical and graphic characteristics, such as design of piping system and placement of air conditioning ducts.

- The Cobilt Division contributes approximately 32% of total company revenues. The division offers production automation products used in integrated circuit and thin film circuit production and testing. These products include a family of automated and manual contact mask aligners, wafer processors, and wafer testers.

INDUSTRY MARKETS

- Revenues for fiscal 1978 were generated primarily by the manufacturing industry as shown by this approximate distribution of revenues:

- Manufacturing		95%
Discrete	85	
Process	10	
- Government		5
Federal	2	
State and local	3	
		100%

- CV's CAD/CAM systems are sold to the electronics, aerospace, automotive, communications, construction, and mapping industries, as well as to various governmental agencies and some public utilities.

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GEOGRAPHIC MARKETS

- Computervision revenues are derived from both domestic and international sales. Fifty-six percent of revenues stemmed from domestic clients distributed over the entire U.S. Sales by CV's foreign subsidiaries constituted approximately 44% of total sales, primarily within Europe and Japan.

- Branch offices are located in:

  - California: Los Angeles, Santa Clara, Sunnyvale; Colorado: Lakewood; Florida: Daytona; Illinois: Chicago; Maryland: Severna Park; Massachusetts: Lexington; Michigan: Wixom; Minnesota: Stillwater; New Jersey: North Brunswick; New York: Rochester; Ohio: Brunswick, Columbus; Texas: Dallas; Washington: Seattle; Wisconsin: Onalaska.
  - International sales locations include: Australia, Canada, England, France, India, Iran, Isral, Italy, Japan, Korea, Mexico, Netherlands, Sweden, Taiwan, and West Germany.

COMPUTER HARDWARE AND SOFTWARE CV uses its CGP-100 minicomputer, part of the Designer System line, for testing software.

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FINANCIAL UPDATE TO HIGHLIGHT DATED NOVEMBER 1983

COMPUTONE SYSTEMS INCORPORATED
One Dunwoody Park
Atlanta, GA 30338
(404) 393-3010

William O. Robeson, Chairman and CEO
Jay M. Rosovsky, President
Public Corporation, OTC
Total Employees: 222
Total Revenue, Fiscal Year End 5/31/84: $36,019,052
Computer Services Revenue: $18,921,000

COMPUTONE SYSTEMS, INC.
FIVE-YEAR FINANCIAL SUMMARY (a)
($ thousands, except per share data)

ITEM \ FISCAL YEAR	5/84	5/83	5/82	5/81	5/80
Revenue	$ 36,109	$ 31,563	$ 24,423	$ 16,008	$ 12,629
. Percent increase from previous year	14%	29%	53%	27%	19%
Income (loss) before taxes	$ (627)	$ 3,710	$ 3,545	$ 1,743	$ 619
. Percent increase (decrease) from previous year	(117%)	5%	103%	182%	(44%)
Net income (loss)	$ (296)	$ 2,112	$ 2,064	$ 983	$ 365
. Percent increase (decrease) from previous year	(114%)	2%	110%	169%	(46%)
Earnings (loss) per share	$ (0.10)	$ 0.72	$ 0.78	$ 0.50	$ 0.20
. Percent increase (decrease) from previous year	(114%)	(8%)	56%	150%	(56%)

(a) Financials have been restated to reflect the following acquisitions, all of which have been accounted for by the pooling of interests method:

- Infotecs, Inc., in September 1982.
- Insurance Publishing and Computers, Inc., in April 1983.
- MCT Information Systems, in October 1983.
- The Computer Room, in October 1983.

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SOURCE OF REVENUE

- Computone's fiscal 1984 revenue was derived approximately as follows:

	Revenue ($ millions)	Percent of Total
Computer Services		
. Processing services	$ 6.4	18%
. Turnkey systems	11.2	31
. Portable terminal software	1.3	4
Subtotal	$ 18.9	53%
Noncomputer Services		
. Retail store sales	$ 12.9	36%
. Portable terminals	3.3	9
. Publishing and education	0.2	-
. Other (primarily interest)	0.7	2
Subtotal	$ 17.1	47%
Total	$ 36.0	100%

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COMPUTONE SYSTEMS
INCORPORATED
One Dunwoody Park
Atlanta, GA 30338
(404) 393-3010

William O. Robeson, President and CEO
Public Corporation, OTC
Total Employees: 237
Total Revenue, Fiscal Year End
5/31/83: $25,067,517
Computer Services Revenue:
$16,200,000

THE COMPANY

- Computone Systems Incorporated, formed in 1965, provides processing services and associated portable terminals, turnkey systems, and applications software primarily to life insurance agents and agricultural businesses. Computone recently began providing turnkey systems to small businesses in vertical industry markets. The company also provides education and publication services to the life insurance industry.

- During fiscal 1983 Computone completed two acquisitions, as follows:

  - On September 30, 1982, Computone issued 95,496 shares of its common stock for all of the issued and outstanding stock of Infotecs, Inc., located in Manchester (NH).

    . Infotecs develops and markets microprocessor-based turnkey systems for vertical market industries including accounting firms, insurance agencies, home fuel oil dealers, and other small businesses.

    . Infotecs had 64 employees at the time of the acquisition and fiscal year end May 1982 revenue of approximately $4.7 million. It now operates as a wholly owned subsidiary of Computone within the company's newly-formed Business Systems Division.

  - On April 30, 1983, Computone issued 200,000 shares of its common stock for all of the issued and outstanding stock of Insurance Publishing and Computers, Inc. (IPC), located in Atlanta.

    . IPC performs publishing services and markets hand-held turnkey systems to the insurance industry.

    . IPC had 11 employees at the time of the acquisition and fiscal year end May 1982 revenue of $666,563. It now operates as a wholly owned subsidiary of Computone.

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- Fiscal 1983 revenue reached $25.1 million, a 17% increase over fiscal 1982 revenue of $21.4 million. Net income rose 2% from $1.9 million in fiscal 1982 to nearly $2 million in fiscal 1983. In the five-year summary that follows, financials have been restated to reflect the acquisitions of Infotecs and IPC and have been accounted for by the pooling of interests method.

COMPUTONE SYSTEMS, INC.
FIVE-YEAR FINANCIAL SUMMARY
($ thousands, except per share data)

ITEM \ FISCAL YEAR	5/83	5/82	5/81	5/80	5/79
Revenue	$ 25,068	$ 21,423	$ 16,008	$ 12,629	$ 10,622
. Percent increase from previous year	17%	34%	27%	19%	N/A
Income before taxes	$ 3,429	$ 3,409	$ 1,743	$ 619	$ 1,099
. Percent increase (decrease) from previous year	1%	96%	182%	(44%)	N/A
Net income	$ 1,989	$ 1,942	$ 983	$ 365	$ 680
. Percent increase (decrease) from previous year	2%	98%	169%	(46%)	N/A
Earnings per share	$ 0.78	$ 0.86	$ 0.50	$ 0.20	$ 0.45
. Percent increase (decrease) from previous year	(9%)	72%	150%	(56%)	N/A

  - Computone management attributes lower profit margins in 1983 to a decline in processing revenue and to the marginal performance of Infotecs due to new product development.

- Product development expenditures were $1.9 million (8% of revenue) in fiscal 1983, as compared to $1.4 million (7% of revenue) in fiscal 1982, and $1.2 million (8% of revenue) in fiscal 1981.

- In October 1982 Computone made a offering of 348,000 shares of common stock. Net proceeds of approximately $6.3 million were used to repay debts of Infotecs, Inc. and as additional working capital.

- Revenue for the three months ending August 31, 1983, reached $6.3 million, a 17% increase over $5.3 million for the same period in 1982. Net income for the period declined 82% from $418,000 in 1982 to $74,000 in 1983.

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- Computone management attributes decreases in net income to the same factors that affected fiscal 1983 financial results.

- On October 27, 1983, Computone issued 400,000 shares of its stock for the acquisition of MCT Information Systems and The Computer Room, both located in Albany (NY).

  - MCT Information Systems is a firm specializing in custom turnkey systems for smaller businesses. The Computer Room operates four retail computer stores in the Albany area.

  - The combined revenue of the two companies for fiscal year end September 30, 1983, was $8.7 million, with a $335,000 net profit. There were 50 total employees at the time of acquisition.

  - The newly-acquired companies will operate as wholly owned subsidiaries of Computone within the Business Systems Division, which also includes Infotecs.

  - For the quarter ending November 30, 1983, Computone's financials will be restated to reflect these acquisitions on a pooling of interests basis.

- As of May 31, 1983, Computone had 237 employees. Prior to the October acquisitions the company had 218 employees, segmented as follows:

Marketing/sales	36
Software services/customer support	45
Operations	22
Product development	47
Manufacturing	41
General and administrative	27
	218

  - The company now has 257 employees.

- Major competitors include Informatics General Corporation, The Continuum Company, and R & R Newkirk.

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KEY PRODUCTS AND SERVICES

- Computone's fiscal 1983 revenue was derived approximately as follows:

	Revenue ($ millions)	Percent of Total
Computer Services		
. Processing services	$ 8.2	33%
. Turnkey systems	7.0	28
. Portable terminal software	1.0	4
Subtotal	$ 16.2	65%
Noncomputer Services		
. Portable terminals	$ 6.6	26
. Education	0.7	3
. Publishing services	0.5	2
. Other (primarily interest)	1.1	4
Subtotal	$ 8.9	35%
Total	$ 25.1	100%

  - Computone provides remote computing services, special-purpose portable terminals, software, turnkey systems, education, and publishing services to life insurance agents.

  - Remote computing services and turnkey systems are provided to agricultural businesses.

  - Computone also manufactures and markets a line of microprocessor-based turnkey systems for vertical market applications to insurance agencies, home fuel oil dealers, accounting firms, and other small businesses.

- Processing services provided by Computone include the following:

  - Computone provides life insurance agents with on-line access to a library of over 660 financial planning and policy illustration programs.

    . Approximately 7,000 clients access the programs through the use of a Computone terminal or an IBM PC. This service contributed $6.9 million (27%) to fiscal 1983 revenue.

    . Available applications listed in Exhibit A accomplish the following major functions:

      - Personal Planning financial programs are used to determine long-range financial plans through the illustration of alternative methods and products.

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EXHIBIT A

LIFE INSURANCE/FINANCIAL PLANNING
NETWORK PROFILE

APPLICATION AREA/PROGRAM NAME
• Personal Planning
– Personal Financial Planning Analysis
– Projection of Defined Contribution Plans
– Funding Private, Qualified, IRA, TSA, and Keogh Programs
– Pre-Retirement Counseling
– Investment Projection and Analysis
– Interest or Rate of Return Calculations
– Home Ownership vs Renting
– Premium Calculations
– Human Life Value
– Asset Accumulations
– Present Value of an Annuity
– Mortgage Calculations
– Discounting or Compounding a Single Sum
– Calculation of After-Tax Income
– Out of Pocket Business Expense Journal
– Projection of Future Earnings from Insurance Sales
– Exclusion Allowance for Tax Sheltered Annuities
– Term vs Permanent Comparison
– Resource Allocation – Wealth Accumulation
• Estate Planning
– Evaluating Estate Settlement Costs
– Gift Tax Calculations
– Adjustment to Estate for Taxable Gifts
– Analysis of Distribution from Qualified, IRA, TDA, and Keogh Programs
– Analysis of Estate Tax Repayment Programs
– Special Use Value for Farms
– Estate Tax Recapture of Special Use Value
– Mortgaged Jointly Owned Property
– Election for Joint Interest of Spouses
– Charitable Estate Planning

APPLICATION AREA/PROGRAM NAME
• Policy Illustration
– Split Dollar
– Policy Comparison
– Using Life Insurance Equity to Prepay Mortgage
– Using Tax Exempt or Deferred Income to Purchase Life Insurance
– Deposit Term
– Retired Lives Reserve
– Insurance Bonus
– Split Dollar Rollover
– Variable Premium and Auxiliary Account Illustrations
– Disappearing Premium
– Deferred Compensation
• Business Planning
– Valuation of a Business
– Funding a Business Purchase Agreement
– Business Financial Ratios
– Working Capital Analysis
– Investment Property Analysis
– Equipment Acquisition Analysis
– Section 79 vs Insurance Bonus
– Defined Benefit, Split Funded Pension Funding Calculations
– Defined Contribution, Split Fund Pension or Profit Sharing Benefit Calculations
– Hypothetical Funding of Life Insurance with Mutual Fund Equity
– Split Life Term and Annuity Illustration

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- Policy Illustration uses Computone's continuously-updated data base of over 4,800 life insurance products offered by more than 275 companies. The illustrations are for traditional permanent or term policies, as well as Universal Life and new interest-sensitive products.

- Estate Planning computes remaining after tax values based upon a variety of wills.

- Business Planning assists the business owner in understanding the application of life insurance in the business environment as well as providing concepts that assist the life insurance salesman in selling to this market.

. Computone's average user pays $74 a month for connect time.

- Computone provides on-line processing services to agricultural businesses for use in livestock and poultry feed formulation, nutrient ingredient analysis, poultry and livestock management, and general accounting.

. In May 1983 Computone introduced the Grain Accounting Management System, a specialized accounting and inventory system for operators of grain elevators, cooperatives, and feed mills.

. Approximately 200 clients access the service via Computone-manufactured terminals used in conjunction with high-speed printer equipment of other manufacturers.

. Agribusiness customers range from small regional feed manufacturers to large multinational agricultural enterprises.

. Agribusiness processing contributed an estimated $1.2 million to fiscal 1983 revenue.

. A listing of agribusiness processing applications is presented in Exhibit B.

- Computone derived $120,000 in fiscal 1983 revenue from selling excess computer time on a per-hour basis to customers who do not use other Computone services.

• Turnkey systems provided by Computone include the following:

- In November 1982 IPC introduced a hand-held turnkey system for insurance agents.

. Manufactured by Panasonic, the basic unit consists of a microprocessor with a visual 26-character display, rechargeable battery pack, and a 40-character dot-matrix printer.

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EXHIBIT B

AGRIBUSINESS NETWORK PROFILE

APPLICATION AREA/PROGRAM NAME
• Accounting – Order Entry – Sales Analysis – Accounts Receivable – Accounts Payable – General Ledger – Invoicing – Payroll – Mailing Lists
• Inventory – Perpetual Inventory – Book Inventory – Bin Reports and Elevator Transfers
• Poultry Management – Production Record Keeping – Economic Replacement Modeling – Production Flock Manipulation – Production Projections – Economic Summaries – Cost Per Dozen Eggs

APPLICATION AREA/PROGRAM NAME
• Livestock Management – Dairy Production Reports – Dairy Herd History – Dairy Breeding Status – Herd Health Summary
• Research – Quality Control Systems – Statistical Applications – Livestock/Poultry Experimental Data Systems
• Formulation and Production Management – Inventory and Ingredient Usage – Product Analysis and Formulation Utility – Least Cost Solution – Product Ingredient Specifications or Formulations – Multi-Blend Formulation – Beef and Dairy Cattle Ration Formulation
• Grain Accounting Management

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- The system is programmed for point-of-sale illustrations of traditional and Universal Life policies and financial needs analysis, and can be custom programmed.

- Priced at approximately $700, over 2,800 hand-held systems were sold during fiscal 1983, contributing $1.9 million to revenue. As of November 1983, over 3,700 systems had been sold in fiscal 1984.

- In February 1983 Computone became a value-added dealer of the IBM PC. In July 1983 the company introduced a turnkey system for the life insurance industry combining the IBM PC and its CHRIS (Computone High Return Insurance Software) financial planning and policy illustration software.

  - Applications available include financial needs analysis, Universal Life and Traditional Life illustrations, business valuation, estate liquidity analysis, client file management, and PeachText 5000T.M..

  - The IBM PC-CHRIS turnkey system ranges in price from $6,091 to $10,955 and includes a 90-day warranty. Maintenance is available from Computone.

  - Computone also introduced the IBM/Computone Productivity Package, a software product which permits the IBM PC-CHRIS system to interface with Computone's SST terminal and its processing network.

- Since 1981 Computone has been marketing turnkey systems to agricultural businesses.

  - The systems use Digital Equipment Corporation microcomputers and minicomputers and incorporate the agribusiness applications also available on Computone's network.

  - There are currently over 15 systems installed.

  - Turnkey prices range from $40,000 to $100,000.

- Through its wholly owned subsidiary, Infotecs, Inc., Computone manufactures and markets microprocessor-based turnkey systems primarily for small business applications.

  - The systems consist of a terminal, a microprocessor-based central processing unit, and disk storage.

  - Infotecs' first major product line, the IMP (Instant Management Power) system, was introduced in 1977 and was succeeded by CC2 (Control Center 2) in 1980. CC2 used a processor for each

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terminal, thereby permitting the addition of workstations without a reduction in system speed. The CC2 is no longer actively marketed.

- In June 1983 Infotecs introduced the 16-bit CC3 (Control Center 3) microcomputer, featuring the HIBOL operating system developed by Infotecs and permitting multiuser, multiprocessor, and multitasking operations.

- The applications software available for the system includes 25 packages specifically designed for use by retail fuel oil dealers, accountants and accounting firms, and property and casualty life insurance agencies. Other general applications are available for time analysis and billing, amortization, order entry, general ledger, fixed cost accounting, depreciation, job cost, payroll, and property management.

- Infotecs turnkey systems are distributed through a nationwide network of independent dealers. The CC3 systems range in price from $15,000 to $50,000 depending on the hardware configuration and applications selected.

- There are currently over 2,000 Infotecs turnkey systems installed. Infotecs sales contributed $4.5 million to Computone's fiscal 1983 revenue.

- In May 1982 Computone introduced PROGRAM PACTs, pre-programmed modules that plug into the company's SST portable terminal and permit the insurance agent to run financial planning and Universal Life programs without interfacing with Computone's mainframe.

  - Many recent purchasers of SST terminals have not subscribed to Computone's processing services and are using PROGRAM PACTs as a standalone application.

  - Since introduction, over 6,500 PROGRAM PACTs have been sold. The software ranges in price from $400 to $600 per program.

  - Software product revenue from PROGRAM PACTs contributed approximately $1 million to fiscal 1983 revenue.

  - As of October 31, 1983, Aid Association for Lutherans, a provider of life insurance, had purchased over 1,600 SST units along with PROGRAM PACTs for financial needs analysis and Horizon (Universal Life) policy illustrations. The order is valued at $4.9 million.

- Computone designs, manufactures, and markets the SST portable printer terminal to users of the company's insurance processing services.

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- The SST features limited standalone capabilities when used with PROGRAM PACTs, as well as removable input instruction templates for each application program and near-letter-quality printing.

- Over 4,500 SST terminals are installed.

- Priced at $3,295, terminal sales contributed approximately $6.6 million to fiscal 1983 revenue.

- In March 1982 Computone introduced the Customer Communications Center to provide toll-free telephone assistance to its customers regarding equipment, software, billing, and shipping services.

- Other services provided by Computone include the following:

  - The Computone Training Institute provides instruction in selling life insurance and other financial products using the company's products and services.

    - Specialized courses introduce insurance and financial planning techniques and specialized applications.

    - Training facilities are located in Atlanta. Workshops are also held throughout the country.

  - Through its IPC subsidiary, Computone provides assistance to life insurance companies in printing rate books, rate cards, and policy forms.

INDUSTRY MARKETS

- Computone's fiscal 1983 revenue was derived approximately as follows:

Life insurance/financial planning	70%
Small businesses	18
Agribusiness	7
Other	5
	100%

GEOGRAPHIC MARKETS

- Virtually all of Computone's fiscal 1983 revenue was derived from the U.S. Less than 1% was derived from foreign sources.

- District offices are located in Atlanta, Boston, Denver, Houston, Kansas City, Minneapolis, Nashville, Philadelphia, Richmond, and San Francisco.

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COMPUTER HARDWARE AND SOFTWARE

- Computone maintains two IBM 4341s, running under DOS/VSE 3.0, at its Atlanta data center.
- The network is accessed via WATS lines, Tymnet, and Telenet.

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COMPUTONE SYSTEMS
INCORPORATED
One Dunwoody Park
Atlanta, GA 30338
(404) 393-3010

William O. Robeson, President and CEO
Public Corporation, OTC
Total Employees: 237
Total Revenue, Fiscal Year End
5/31/83: $25,067,517
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$16,200,000

THE COMPANY

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- During fiscal 1983 Computone completed two acquisitions, as follows:

  - On September 30, 1982, Computone issued 95,496 shares of its common stock for all of the issued and outstanding stock of Infotecs, Inc., located in Manchester (NH).

    . Infotecs develops and markets microprocessor-based turnkey systems for vertical market industries including accounting firms, insurance agencies, home fuel oil dealers, and other small businesses.

    . Infotecs had 64 employees at the time of the acquisition and fiscal year end May 1982 revenue of approximately $4.7 million. It now operates as a wholly owned subsidiary of Computone within the company's newly-formed Business Systems Division.

  - On April 30, 1983, Computone issued 200,000 shares of its common stock for all of the issued and outstanding stock of Insurance Publishing and Computers, Inc. (IPC), located in Atlanta.

    . IPC performs publishing services and markets hand-held turnkey systems to the insurance industry.

    . IPC had 11 employees at the time of the acquisition and fiscal year end May 1982 revenue of $666,563. It now operates as a wholly owned subsidiary of Computone.

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- Fiscal 1983 revenue reached $25.1 million, a 17% increase over fiscal 1982 revenue of $21.4 million. Net income rose 2% from $1.9 million in fiscal 1982 to nearly $2 million in fiscal 1983. In the five-year summary that follows, financials have been restated to reflect the acquisitions of Infotecs and IPC and have been accounted for by the pooling of interests method.

COMPUTONE SYSTEMS, INC.
FIVE-YEAR FINANCIAL SUMMARY
($ thousands, except per share data)

ITEM \ FISCAL YEAR	5/83	5/82	5/81	5/80	5/79
Revenue	$ 25,068	$ 21,423	$ 16,008	$ 12,629	$ 10,622
. Percent increase from previous year	17%	34%	27%	19%	N/A
Income before taxes	$ 3,429	$ 3,409	$ 1,743	$ 619	$ 1,099
. Percent increase (decrease) from previous year	1%	96%	182%	(44%)	N/A
Net income	$ 1,989	$ 1,942	$ 983	$ 365	$ 680
. Percent increase (decrease) from previous year	2%	98%	169%	(46%)	N/A
Earnings per share	$ 0.78	$ 0.86	$ 0.50	$ 0.20	$ 0.45
. Percent increase (decrease) from previous year	(9%)	72%	150%	(56%)	N/A

  - Computone management attributes lower profit margins in 1983 to a decline in processing revenue and to the marginal performance of Infotecs due to new product development.

- Product development expenditures were $1.9 million (8% of revenue) in fiscal 1983, as compared to $1.4 million (7% of revenue) in fiscal 1982, and $1.2 million (8% of revenue) in fiscal 1981.

- In October 1982 Computone made a offering of 348,000 shares of common stock. Net proceeds of approximately $6.3 million were used to repay debts of Infotecs, Inc. and as additional working capital.

- Revenue for the three months ending August 31, 1983, reached $6.3 million, a 17% increase over $5.3 million for the same period in 1982. Net income for the period declined 82% from $418,000 in 1982 to $74,000 in 1983.

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- Computone management attributes decreases in net income to the same factors that affected fiscal 1983 financial results.

- On October 27, 1983, Computone issued 400,000 shares of its stock for the acquisition of MCT Information Systems and The Computer Room, both located in Albany (NY).

  - MCT Information Systems is a firm specializing in custom turnkey systems for smaller businesses. The Computer Room operates four retail computer stores in the Albany area.

  - The combined revenue of the two companies for fiscal year end September 30, 1983, was $8.7 million, with a $335,000 net profit. There were 50 total employees at the time of acquisition.

  - The newly-acquired companies will operate as wholly owned subsidiaries of Computone within the Business Systems Division, which also includes Infotecs.

  - For the quarter ending November 30, 1983, Computone's financials will be restated to reflect these acquisitions on a pooling of interests basis.

- As of May 31, 1983, Computone had 237 employees. Prior to the October acquisitions the company had 218 employees, segmented as follows:

Marketing/sales	36
Software services/customer support	45
Operations	22
Product development	47
Manufacturing	41
General and administrative	27
	218

  - The company now has 257 employees.

- Major competitors include Informatics General Corporation, The Continuum Company, and R & R Newkirk.

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KEY PRODUCTS AND SERVICES

- Computone's fiscal 1983 revenue was derived approximately as follows:

	Revenue ($ millions)	Percent of Total
Computer Services		
. Processing services	$ 8.2	33%
. Turnkey systems	7.0	28
. Portable terminal software	1.0	4
Subtotal	$ 16.2	65%
Noncomputer Services		
. Portable terminals	$ 6.6	26
. Education	0.7	3
. Publishing services	0.5	2
. Other (primarily interest)	1.1	4
Subtotal	$ 8.9	35%
Total	$ 25.1	100%

  - Computone provides remote computing services, special-purpose portable terminals, software, turnkey systems, education, and publishing services to life insurance agents.

  - Remote computing services and turnkey systems are provided to agricultural businesses.

  - Computone also manufactures and markets a line of microprocessor-based turnkey systems for vertical market applications to insurance agencies, home fuel oil dealers, accounting firms, and other small businesses.

- Processing services provided by Computone include the following:

  - Computone provides life insurance agents with on-line access to a library of over 660 financial planning and policy illustration programs.

    . Approximately 7,000 clients access the programs through the use of a Computone terminal or an IBM PC. This service contributed $6.9 million (27%) to fiscal 1983 revenue.

    . Available applications listed in Exhibit A accomplish the following major functions:

      - Personal Planning financial programs are used to determine long-range financial plans through the illustration of alternative methods and products.

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EXHIBIT A

LIFE INSURANCE/FINANCIAL PLANNING NETWORK PROFILE

APPLICATION AREA/PROGRAM NAME
• Personal Planning
– Personal Financial Planning Analysis
– Projection of Defined Contribution Plans
– Funding Private, Qualified, IRA, TSA, and Keogh Programs
– Pre-Retirement Counseling
– Investment Projection and Analysis
– Interest or Rate of Return Calculations
– Home Ownership vs Renting
– Premium Calculations
– Human Life Value
– Asset Accumulations
– Present Value of an Annuity
– Mortgage Calculations
– Discounting or Compounding a Single Sum
– Calculation of After-Tax Income
– Out of Pocket Business Expense Journal
– Projection of Future Earnings from Insurance Sales
– Exclusion Allowance for Tax Sheltered Annuities
– Term vs Permanent Comparison
– Resource Allocation – Wealth Accumulation
• Estate Planning
– Evaluating Estate Settlement Costs
– Gift Tax Calculations
– Adjustment to Estate for Taxable Gifts
– Analysis of Distribution from Qualified, IRA, TDA, and Keogh Programs
– Analysis of Estate Tax Repayment Programs
– Special Use Value for Farms
– Estate Tax Recapture of Special Use Value
– Mortgaged Jointly Owned Property
– Election for Joint Interest of Spouses
– Charitable Estate Planning

APPLICATION AREA/PROGRAM NAME
• Policy Illustration
– Split Dollar
– Policy Comparison
– Using Life Insurance Equity to Prepay Mortgage
– Using Tax Exempt or Deferred Income to Purchase Life Insurance
– Deposit Term
– Retired Lives Reserve
– Insurance Bonus
– Split Dollar Rollover
– Variable Premium and Auxiliary Account Illustrations
– Disappearing Premium
– Deferred Compensation
• Business Planning
– Valuation of a Business
– Funding a Business Purchase Agreement
– Business Financial Ratios
– Working Capital Analysis
– Investment Property Analysis
– Equipment Acquisition Analysis
– Section 79 vs Insurance Bonus
– Defined Benefit, Split Funded Pension Funding Calculations
– Defined Contribution, Split Fund Pension or Profit Sharing Benefit Calculations
– Hypothetical Funding of Life Insurance with Mutual Fund Equity
– Split Life Term and Annuity Illustration

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- Policy Illustration uses Computone's continuously-updated data base of over 4,800 life insurance products offered by more than 275 companies. The illustrations are for traditional permanent or term policies, as well as Universal Life and new interest-sensitive products.

- Estate Planning computes remaining after tax values based upon a variety of wills.

- Business Planning assists the business owner in understanding the application of life insurance in the business environment as well as providing concepts that assist the life insurance salesman in selling to this market.

. Computone's average user pays $74 a month for connect time.

- Computone provides on-line processing services to agricultural businesses for use in livestock and poultry feed formulation, nutrient ingredient analysis, poultry and livestock management, and general accounting.

. In May 1983 Computone introduced the Grain Accounting Management System, a specialized accounting and inventory system for operators of grain elevators, cooperatives, and feed mills.

. Approximately 200 clients access the service via Computone-manufactured terminals used in conjunction with high-speed printer equipment of other manufacturers.

. Agribusiness customers range from small regional feed manufacturers to large multinational agricultural enterprises.

. Agribusiness processing contributed an estimated $1.2 million to fiscal 1983 revenue.

. A listing of agribusiness processing applications is presented in Exhibit B.

- Computone derived $120,000 in fiscal 1983 revenue from selling excess computer time on a per-hour basis to customers who do not use other Computone services.

• Turnkey systems provided by Computone include the following:

- In November 1982 IPC introduced a hand-held turnkey system for insurance agents.

. Manufactured by Panasonic, the basic unit consists of a microprocessor with a visual 26-character display, rechargeable battery pack, and a 40-character dot-matrix printer.

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COMPUTONE SYSTEMS INCORPORATED

EXHIBIT B

AGRIBUSINESS NETWORK PROFILE

APPLICATION AREA/PROGRAM NAME	APPLICATION AREA/PROGRAM NAME
• Accounting – Order Entry – Sales Analysis – Accounts Receivable – Accounts Payable – General Ledger – Invoicing – Payroll – Mailing Lists • Inventory – Perpetual Inventory – Book Inventory – Bin Reports and Elevator Transfers • Poultry Management – Production Record Keeping – Economic Replacement Modeling – Production Flock Manipulation – Production Projections – Economic Summaries – Cost Per Dozen Eggs	• Livestock Management – Dairy Production Reports – Dairy Herd History – Dairy Breeding Status – Herd Health Summary • Research – Quality Control Systems – Statistical Applications – Livestock/Poultry Experimental Data Systems • Formulation and Production Management – Inventory and Ingredient Usage – Product Analysis and Formulation Utility – Least Cost Solution – Product Ingredient Specifications or Formulations – Multi-Blend Formulation – Beef and Dairy Cattle Ration Formulation • Grain Accounting Management

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- The system is programmed for point-of-sale illustrations of traditional and Universal Life policies and financial needs analysis, and can be custom programmed.

- Priced at approximately $700, over 2,800 hand-held systems were sold during fiscal 1983, contributing $1.9 million to revenue. As of November 1983, over 3,700 systems had been sold in fiscal 1984.

- In February 1983 Computone became a value-added dealer of the IBM PC. In July 1983 the company introduced a turnkey system for the life insurance industry combining the IBM PC and its CHRIS (Computone High Return Insurance Software) financial planning and policy illustration software.

  - Applications available include financial needs analysis, Universal Life and Traditional Life illustrations, business valuation, estate liquidity analysis, client file management, and PeachText 5000T.M..

  - The IBM PC-CHRIS turnkey system ranges in price from $6,091 to $10,955 and includes a 90-day warranty. Maintenance is available from Computone.

  - Computone also introduced the IBM/Computone Productivity Package, a software product which permits the IBM PC-CHRIS system to interface with Computone's 5ST terminal and its processing network.

- Since 1981 Computone has been marketing turnkey systems to agricultural businesses.

  - The systems use Digital Equipment Corporation microcomputers and minicomputers and incorporate the agribusiness applications also available on Computone's network.

  - There are currently over 15 systems installed.

  - Turnkey prices range from $40,000 to $100,000.

- Through its wholly owned subsidiary, Infotecs, Inc., Computone manufactures and markets microprocessor-based turnkey systems primarily for small business applications.

  - The systems consist of a terminal, a microprocessor-based central processing unit, and disk storage.

  - Infotecs' first major product line, the IMP (Instant Management Power) system, was introduced in 1977 and was succeeded by CC2 (Control Center 2) in 1980. CC2 used a processor for each

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terminal, thereby permitting the addition of workstations without a reduction in system speed. The CC2 is no longer actively marketed.

- In June 1983 Infotecs introduced the 16-bit CC3 (Control Center 3) microcomputer, featuring the HIBOL operating system developed by Infotecs and permitting multiuser, multiprocessor, and multitasking operations.

- The applications software available for the system includes 25 packages specifically designed for use by retail fuel oil dealers, accountants and accounting firms, and property and casualty life insurance agencies. Other general applications are available for time analysis and billing, amortization, order entry, general ledger, fixed cost accounting, depreciation, job cost, payroll, and property management.

- Infotecs turnkey systems are distributed through a nationwide network of independent dealers. The CC3 systems range in price from $15,000 to $50,000 depending on the hardware configuration and applications selected.

- There are currently over 2,000 Infotecs turnkey systems installed. Infotecs sales contributed $4.5 million to Computone's fiscal 1983 revenue.

- In May 1982 Computone introduced PROGRAM PACTs, pre-programmed modules that plug into the company's SST portable terminal and permit the insurance agent to run financial planning and Universal Life programs without interfacing with Computone's mainframe.

  - Many recent purchasers of SST terminals have not subscribed to Computone's processing services and are using PROGRAM PACTs as a standalone application.

  - Since introduction, over 6,500 PROGRAM PACTs have been sold. The software ranges in price from $400 to $600 per program.

  - Software product revenue from PROGRAM PACTs contributed approximately $1 million to fiscal 1983 revenue.

  - As of October 31, 1983, Aid Association for Lutherans, a provider of life insurance, had purchased over 1,600 SST units along with PROGRAM PACTs for financial needs analysis and Horizon (Universal Life) policy illustrations. The order is valued at $4.9 million.

- Computone designs, manufactures, and markets the SST portable printer terminal to users of the company's insurance processing services.

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- The SST features limited standalone capabilities when used with PROGRAM PACTs, as well as removable input instruction templates for each application program and near-letter-quality printing.

- Over 4,500 SST terminals are installed.

- Priced at $3,295, terminal sales contributed approximately $6.6 million to fiscal 1983 revenue.

- In March 1982 Computone introduced the Customer Communications Center to provide toll-free telephone assistance to its customers regarding equipment, software, billing, and shipping services.

- Other services provided by Computone include the following:

  - The Computone Training Institute provides instruction in selling life insurance and other financial products using the company's products and services.

    . Specialized courses introduce insurance and financial planning techniques and specialized applications.

    . Training facilities are located in Atlanta. Workshops are also held throughout the country.

  - Through its IPC subsidiary, Computone provides assistance to life insurance companies in printing rate books, rate cards, and policy forms.

INDUSTRY MARKETS

- Computone's fiscal 1983 revenue was derived approximately as follows:

Life insurance/financial planning	70%
Small businesses	18
Agribusiness	7
Other	5
	100%

GEOGRAPHIC MARKETS

- Virtually all of Computone's fiscal 1983 revenue was derived from the U.S. Less than 1% was derived from foreign sources.

- District offices are located in Atlanta, Boston, Denver, Houston, Kansas City, Minneapolis, Nashville, Philadelphia, Richmond, and San Francisco.

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COMPUTER HARDWARE AND SOFTWARE

- Computone maintains two IBM 4341s, running under DOS/VSE 3.0, at its Atlanta data center.
- The network is accessed via WATS lines, Tymnet, and Telenet.

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COMPANY HIGHLIGHT

COMPUTONE SYSTEMS, INC.
One Dunwoody Park
Atlanta, GA 30338
(404) 393-3010

William O. Robeson, President,
CEO and Director
Public Corporation, OTC
Total Employees: 160
Total Revenue, Fiscal Year End
5/31/81: $10,573,458
Computer Services Revenue:
$5,900,000

PRINCIPAL BUSINESS

- Computone Systems, Inc., incorporated in 1965, provides processing services and manufactures and markets associated portable computer terminals to life insurance agents and agricultural businesses. The company also markets a feed formulation turnkey system.

- In November 1981, Computone made its first public offering of 760,000 shares of common stock estimated to generate $3.9 million in net proceeds. Proceeds will be used to fund an expanded installment purchase plan for terminals, to purchase a new mainframe, retire debts, and for future acquisitions.

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FINANCIALS ($ thousands)

ITEM \ FISCAL YEAR	5/81	5/80	5/79	5/78	5/77
Revenue	$10,573	$ 8,152	$ 7,762	$ 5,274	$ 3,957
. Percent increase from previous year	30%	5%	47%	33%	-
Income before taxes and extraordinary item	$ 1,474	$ 359	$ 934	$ 587	$ 681
. Percent increase (decrease) from previous year	311%	(62%)	59%	(14%)	-
Net income	$ 825	$ 211	$ 548	$ 340	$ 416
. Percent increase (decrease) from previous year	291%	(61%)	61%	(18%)	-
Earnings per share	$ 0.48	$ 0.12	$ 0.38	$ 0.22	$ 0.24
. Percent increase (decrease) from previous year	300%	(68%)	73%	(8%)	-

- Decreases in net income and income before taxes in fiscal 1980 were due to:
  - The number of terminals shipped in fiscal 1980 decreased by 22% from 1979. The high volume of fiscal 1979 replacement terminal sales, resulting from the introduction of a new printer terminal, were not repeated in fiscal 1980.
  - Cost of services increased 39% in fiscal 1980 due to the installation of an additional mainframe, a data base management system, and a new department for maintenance of insurance plan data backlog.
- Revenue and net income for the three months ended August 31, 1981 were $3.2 million and $256,000 respectively.

SOURCES OF REVENUE

Remote computing	52%
Batch processing	3
Terminal sales, education, and other	45
	100%

ACQUISITIONS

- In June 1980, Computone acquired Software Dynamics, Inc. of Valley Forge (PA), a firm providing batch processing services to the agribusiness industry.

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EMPLOYEES

- Computone's 160 employees are segmented as follows:

Marketing/sales	25
Software services/customer support	45
Computer operations	4
Manufacturing	42
General and administrative	44
	160

PRODUCTS AND SERVICES

- Computone offers interactive remote computing services providing access to over 660 financial planning and policy illustration programs via portable computer terminals. Processing services are also provided to agricultural businesses for use in feed formulation. A breakdown of revenue by source follows:

	Percentage of Revenue (5/81)
Financial Planning Products and Services:	
Portable terminal sales	38%
Software services	38
Educational services	4
Other	3
Agribusiness Products and Services	14
Data Center	3
	100%

- Computone's life insurance processing services provide the agent with tools for complex financial planning, variables analysis, and insurance plan assessment at the point of sale. Approximately 6,000 users currently access the system. Available applications listed in Exhibit A accomplish the following major functions:

  - Personal financial planning programs are useful in determining long-range financial plans through the illustration of alternative methods of structuring an individual's estate.

  - Computone's data base provides policy illustration for more than 3,100 life insurance plans offered by approximately 240 companies. Policy information is continuously updated to give current figures for premiums, cash dividends, and "Universal Life" insurance products.

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EXHIBIT A

LIFE INSURANCE/FINANCIAL PLANNING
NETWORK PROFILE

APPLICATION AREA/PROGRAM NAME
• Personal Planning
– Personal Financial Planning Analysis
– Projection of Defined Contribution Plans
– Funding Private, Qualified, IRA, TSA and Keogh Programs
– Pre-Retirement Counseling
– Investment Projection and Analysis
– Interest or Rate of Return Calculations
– Home Ownership vs Renting
– Premium Calculations
– Human Life Value
– Asset Accumulations
– Present Value of an Annuity
– Mortgage Calculations
– Discounting or Compounding a Single Sum
– Calculation of After-Tax Income
– Out of Pocket Business Expense Journal
– Projection of Future Earnings from Insurance Sales
– Exclusion Allowance for Tax Sheltered Annuities
– Term vs Permanent Comparison
– Resource Allocation – Wealth Accumulation
• Estate Planning
– Evaluating Estate Settlement Costs
– Gift Tax Calculations
– Adjustment to Estate for Taxable Gifts
– Analysis of Distribution from Qualified, IRA, TDA, and Keogh Programs
– Analysis of Estate Tax Repayment Programs
– Special Use Value for Farms
– Estate Tax Recapture of Special Use Value
– Mortgaged Jointly Owned Property
– Election for Joint Interest of Spouses
– Charitable Estate Planning

APPLICATION AREA/PROGRAM NAME
• Policy Illustrations
– Split Dollar
– Policy Comparison
– Using Life Insurance Equity to Prepay Mortgage
– Using Tax Exempt or Deferred Income to Purchase Life Insurance
– Deposit Term
– Retired Lives Reserve
– Insurance Bonus
– Split Dollar Rollover
– Variable Premium and Auxiliary Account Illustrations
– Disappearing Premium
– Deferred Compensation
• Business Insurance
– Valuation of a Business
– Funding a Business Purchase Agreement
– Business Financial Ratios
– Working Capital Analysis
– Investment Property Analysis
– Equipment Acquisition Analysis
– Section 79 vs Insurance Bonus
– Defined Benefit, Split Funded Pension Funding Calculations
– Defined Contribution, Split Fund Pension or Profit Sharing Benefit Calculations
– Hypothetical Funding of Life Insurance with Mutual Fund Equity
– Split Life Term and Annuity Illustration

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- Employee benefit planning applications illustrate packages for pension, retirement, and bonus programs; deferred compensation; and group insurance plans.

- Investment analysis programs allow for the calculation and comparison of business valuation and investment strategy projections involving tax shelters, mutual funds, and annuities.

- Computone has provided processing services since 1965 to agricultural business clients for use in livestock and poultry feed formulation; nutrient ingredient analysis; and dairy herd, livestock, and poultry management. Feed formulation applications providing the user with a "least cost" ingredient mix account for 90% of Computone's agribusiness revenue. Approximately 200 clients access the system via Computone-manufactured input terminals used in conjunction with high-speed printer equipment of other manufacturers.

  - A listing of agribusiness applications is presented in Exhibit B.

- In May 1981, Computone began marketing turnkey systems using DEC PDP-11/34 minicomputers and Computone agribusiness applications software. The system sells for $60,000 to $100,000.

  - Computone also markets its applications as separate software packages for those clients with previously installed compatible hardware.

- A small percentage of processing revenue is derived from selling excess computer time on a per-hour basis to customers who do not use other Computone services.

- In connection with its processing services, Computone designs, manufactures, and markets a line of portable point-of-sale computer terminals. Ease-of-use features include removable input instruction templates provided for each application program. Terminal product offerings include the following:

  - The KeyPact 150 Universal Input Module was introduced in June 1980 and is priced at $1,750. The module can be added to general purpose communicating terminals, microcomputers, and word processing systems to permit access to Computone programs.

  - The Computone SST, introduced in August 1981, features an impact printer for letter-quality reports, and is priced at $3,295. Computone is developing plug-in program modules which may be run on a standalone basis on the SST.

INDUSTRY MARKETS

Life insurance/financial planning	85%
Agribusiness	15

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EXHIBIT B

AGRIBUSINESS NETWORK PROFILE

APPLICATION AREA/PROGRAM NAME
• Accounting
– Order Entry
– Sales Analysis
– Accounts Receivable
– Accounts Payable
– General Ledger
– Invoicing
– Payroll
– Mailing Lists
– Financial Planning
• Inventory
– Perpetual Inventory
– Book Inventory
– Bin Reports and Elevator Transfers
• Poultry Management
– Production Record Keeping
– Economic Replacement Modeling
– Production Flock Manipulation
– Production Projections
– Economic Summaries
– Cost Per Dozen Eggs

APPLICATION AREA/PROGRAM NAME
• Livestock Management
– Dairy Production Reports
– Dairy Herd History
– Dairy Breeding Status
– Herd Health Summary
• Research
– Quality Control Systems
– Statistical Applications
– Livestock/Poultry Experimental Data Systems
• Formulation and Production Management
– Inventory and Ingredient Usage
– Product Analysis and Formulation Utility
– Least Cost Solution
– Product Ingredient Specifications or Formulations
– Multi-Blend Formulation
– Beef and Dairy Cattle Ration Formulation

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GEOGRAPHIC MARKETS

U.S.	95%
International (Canada, England, Central and South America, and Western Europe)	5%

- District offices are located in Atlanta, Cohasset (MA), Chicago, Centerville (OH), Dallas, Aurora (CO), Canton (MI), Humble (TX), Holt (MO), Santa Ana (CA), Louisville (KY), Plymouth (MN), Thorndale (PA), Richmond (VA), Mercer Island (WA), Los Gatos (CA), and Pittsford (NY).

COMPUTER HARDWARE AND SOFTWARE

- Computone maintains the following equipment at its Atlanta data center:
  - 2 IBM 4341s, EDOS.
- The network is accessed via WATS lines, Tymnet, and Telenet.

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Robeson refused to respond. Dropped 1/81

COMPANY HIGHLIGHT

COMPUTONE SYSTEMS
One Dunwoody Park
Atlanta, GA 30338
(404) 393-3010

William O. Robeson, President
Private
Total employees: 72
Total revenues, fiscal year end 12/31/77: $4,000,000*
Computer Services revenues: $3,250,000*

THE COMPANY

- Founded in 1966 as Computrol, the company provided remote computing services and manufactured a portable terminal which was offered as part of a turnkey system for the feed and meat packing industries. Later, the company merged with Squire Sanders Corporation. The name was changed to Computone Systems and the turnkey services were expanded to include the life insurance industry.

- Revenues increased 100% between fiscal 1976 and 1977 from $2 million* to $4 million*. Management expects total revenues to reach $6 million by fiscal year end 1978, a growth of 50% over fiscal 1977. Computone's fastest growth area is its personal financial planning services, increasing at 30% per year.

- Computone's major competition for its computer services clients comes from in-house computer systems (principally IBM). Texas Instruments is its primary competitor in the terminal market.

- The company's 72 employees are divided as follows:

-	Manufacturing	21%
-	Sales	11%
-	Programming	17%
-	Computer operations	4%
-	Actuaries/accountants	8%
-	Accounting staff	11%
-	Clerical/administration	28%
		100%

* INPUT estimate

May 1978

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KEY PRODUCTS AND SERVICES

- In 1977, 48% of computer services revenues were generated by turnkey systems sales shown below:

	1977
Turnkey Systems	48%
Computer Services	42%
Professional Services (training)	10%
	100%

- Computone's turnkey systems include its own portable terminal, specialized software, user training, and data base inquiry to Comptone's host computer. The system is available for use in feed formulation, sausage formulation, meat packing, and personal financial planning.

- The company also provides interactive remote computing services for life insurance and process manufacturing applications. The services utilize specialized proprietary software.

  - Insurance salesman use Computone-supplied voice response BOSS terminals to determine life insurance rates.
  - Manufacturers use the feed blending and sausage formulation software once a week as an integral part of their production environment. This is linear programming software. There are more than 150 customers utilizing this service.

APPLICATIONS AND INDUSTRY MARKETS Specialty applications for process manufacturing and life insurance industries.

GEOGRAPHIC MARKETS U.S. customers are widely dispersed and generate approximately 95% of revenues. Remaining revenues are producted by clients in New Zealand, England, and Canada.

COMPUTER HARDWARE AND SOFTWARE Computone has an in-house IBM 360/65. It has a dial-up communications network and also uses TYMNET services.

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INPUT

Vendor Profile

A Publication from INPUT's Vendor Analysis Program – U.S.

June 1996

CompuTrac, Inc.

Chairman & CEO: Harry W. Margolis
222 Municipal Drive
Richardson, TX 75080
Phone: (214) 234-4241
Fax: (214) 234-6280

Status:	Public
Employees:	52 (4/96)
Revenue:	$5,259,131
Fiscal Year End:	1/31/96

Key Points

- CompuTrac is currently celebrating its 20th anniversary of providing time, billing, accounting, and management software to the law firm marketplace.
- During the last ten years, CompuTrac's Hewlett-Packard-based products have been targeted almost exclusively toward the largest law firms in North America. The company's new Windows-based Dimension™ product line will expand the company's target market from 750 law firms to approximately 300,000 law firms.

Company Description

CompuTrac, founded in 1977, develops, markets, services, and supports integrated computer systems and software applications designed for law firms.

- The company's systems assist customers in applications such as timekeeping, billing, disbursements, accounting, report writing, conflict of interest, and other practice support applications.
- To date, CompuTrac's systems have exclusively used Hewlett-Packard equipment. CompuTrac is a Hewlett-Packard Premier Solution Partner.
- CompuTrac is completing a three-year development of Dimension—a new generation of client/server software created exclusively with Microsoft development tools

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that will run on Windows 95 and/or Windows NT environments. CompuTrac has been designated a Microsoft Solution Provider Partner.

- CompuTrac has installed more than 275 systems in law firms throughout North America.

Operations and Structure

CompuTrac's Legal Division markets and supports the company's integrated law automation systems.

PanaMar Systems is a CompuTrac division established in May 1992 to market video and multimedia services to targeted market segments within the legal industry, selected commercial accounts, and the general corporate community. During fiscal 1996, the operations of this division were not material to CompuTrac's business as a whole.

Company Strategy

CompuTrac's long-term commitment is to be a leading provider of high-end financial management systems, software, and services to law firms worldwide.

The company's product strategy is to offer sophisticated, comprehensive, and easy-to-use products on open system platforms and to integrate its proprietary software with third-party products.

During fiscal 1994, the company made the decision to abandon certain software projects and to focus its development efforts in the direction of current Windows-based software technology.

- Dimension is the result of three years of development efforts, using current Microsoft technology to address current market demands.
- Dimension is currently in the beta-testing phase. Under the current schedule, CompuTrac will begin accepting orders for Dimension products in June 1996 and will begin shipment in late summer of this year. The company is actively engaged in a variety of marketing programs targeted toward both the users of the products and certain third-party distribution channels.

Financials

Fiscal 1996 revenue was $5.3 million, a 22% decrease from $6.8 million for fiscal 1995. Net income was $664,117 in fiscal 1996, up significantly over fiscal 1995 net income of $207,509.

A three-year financial summary is shown on the following page.

CompuTrac management attributes fiscal 1996 results to the following:

- System sales decreased 48% to $727,463. Substantially all of the company's system sales revenue in both fiscal 1996 and 1995 were from client system upgrades and peripheral sales, as opposed to new system sales.
- CompuTrac continues to attribute overall decreased sale activity to economic pressures in the legal marketplace. Additionally, the company believes that its fiscal 1994 decision to abandon certain software projects and to focus its development efforts on Windows-based software further contributed to the decline in system sales as competitors' host-based, client/server products became available to the legal marketplace.

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CompuTrac, Inc.
Three-Year Financial Summary
($ Thousands, except per share data)

Item	Fiscal Year 1/96	1/95	1/94
Revenue	$5,259	$6,767	$9,671
• Percent change from previous year	(22%)	(30%)	(17%)
Income (loss) before taxes	$664	$703	$(5,654)
• Percent change from previous year	(6%)	112%	(b) *
Net income (loss)	$664	$208	$(5,366)
• Percent change from previous year	219%	(a) 104%	*
Earnings (loss) per share	$0.11	$0.03	$(0.99)
• Percent change from previous year	267%	103%	(350%)

* *Percent change exceeds 1,000%.*

(a) Includes losses of $495,579 associated with the discontinued operations of MediaMagic.

(b) Includes nonrecurring charges of $500,000 for estimated software project completion costs and restructuring charges of $2.5 million.

New system sales will be minimal until the company releases Dimension. CompuTrac expects to report losses during the next several quarters due to start up expenses associated with the Dimension product line.

Interim Results

Revenue for the three months ending April 30, 1996 was $1.17 million, compared to $1.3 million for the same period a year ago. Net income was $1,200, compared to $153,600 for the same period a year ago.

Market Financials

Virtually 100% of CompuTrac's revenue is derived from the legal profession.

CompuTrac believes it is one of the major suppliers of systems to midsize to large law firms.

Source of Revenue by Product/Service

Approximately 14% of CompuTrac's fiscal 1996 revenue was derived from turnkey system sales and 86% from associated support and maintenance services. A three-year summary of source of revenue follows:

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CompuTrac, Inc.
Three-Year Source of Revenue Summary
($ Thousands)

	Fiscal Year					
	1/96		1/95		1/94	
Product/Service	Revenue $	Percent of Total	Revenue $	Percent of Total	Revenue $	Percent of Total
System sales	$727	14%	$1,390	21%	$3,733	39%
Services and support	4,532	86%	5,377	79%	5,938	61%
Total	$5,259	100%	$6,767	100%	$9,671	100%

Geographic Markets

Virtually 100% of CompuTrac's fiscal 1996 revenue was derived from the U.S. and Canada.

Acquisitions/Divestitures

In April 1994, CompuTrac discontinued the operations of MediaMagic Corporation, an 80%-owned developmental state company that designed, marketed, manufactured, and sold video and audio hardware and software products as peripheral add-ons to the HP UNIX-based line of workstations.

- CompuTrac acquired its interest in MediaMagic in February 1993 in order to enter the market for multimedia computing.
- MediaMagic incurred losses of $221,000 for fiscal 1994 and losses of $162,000 for the quarter ending April 30, 1994.
- Although MediaMagic products were well received and sales continue to increase, the prospect for break even on a profit-and loss-basis was not expected in the near future and CompuTrac could not continue to divert its attention and resources away from its core business.

Employees

As of March 31, 1996, CompuTrac had 52 full-time employees, segmented as follows:

Marketing/sales	7
Technical support/product development	34
General and administrative	11
	52

Key Products and Services

CompuTrac OPEN! is the umbrella name used to describe all of CompuTrac's current software products, which are targeted to midsize and large law firms.

- The software runs on all minicomputers in either the HP 3000 Series or HP 9000 Series and provides full interoperability support for Novell NetWare, Banyan Vines, and Microsoft NT.
- The applications run in several different operating system environments, including UNIX, MPE/iX (native HP), MS/DOS, and MS/Windows.
- All CompuTrac OPEN! products are fully integrated with master data files and each other; they use the firm-wide Informix relational database or IMAGE/SQL

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database; and they offer access to PC users on a LAN.

Under the CompuTrac OPEN! umbrella are four major product categories or groupings as follows:

- Financial Management Software is the core accounting and financial management system, which includes such applications as:
  - Billing and Timekeeping
  - Management and Financial Reporting
  - Trust Accounting
  - Extended History
  - General Ledger
  - Accounts Payable
  - Network and Device Interface
- Practice Management Software consists of optional software modules and products, including such applications as:
  - Conflict of Interest
  - Records Management (optional bar code scanner)
  - Event Management
  - Marketing
  - Profitability Reporting
  - CLS Case Management
  - LawVision Supervisor™ (which provides integration with third-party products such as CompuLaw Docket and SoftSolutions Document Management).
- Executive Information Software includes such applications as Zoom™ (a real-time inquiry tool) and Browse™.
- Programming Tools includes such software applications as:
  - PIE™-Programmatic Interface for the End-User
  - FOCUS, IQ, and other third-party SQL reporting products
  - Informix Viewpoint, DBA, and WingZ, and Informix 4GL and native SQL

CompuTrac's turnkey system prices currently range from $60,000 for a low-end legal accounting system to $625,000 or more for an integrated system with accounting and other integrated applications in a large law firm.

All CompuTrac's Hewlett-Packard-based systems are sold in conjunction with a maintenance agreement that provides customer training, enhancements and software maintenance services.

- As of March 31, 1996, CompuTrac had 112 maintenance agreements in effect, one of which covers an earlier generation of the system.
- Installation support and hardware maintenance services are provided by Hewlett-Packard.

The Dimension product is a next-generation law firm timekeeping, billing, and management product created exclusively with Microsoft development tools such as MSAccess, SQL-Server, C++, Visual Basic, OLE, and ODBC.

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- In its first release, Dimension is designed to meet the needs of small law firms, including sole practitioners. Subsequent product releases will accommodate larger law firms.
- A reseller channel is currently in development to market, install, and train users on Dimension products.
- Availability of Dimension products is scheduled for late this summer.

CompuTrac also provides implementation planning, data conversion, installation, and custom software development services.

Marketing and Sales

CompuTrac markets its systems through presentations at conventions of regional and national associations of lawyers and law firm administrators. The company also advertises in regional and national journals or periodicals targeting the legal profession. CompuTrac uses direct mailing campaigns and demonstrates its systems at local product shows, industry seminars, and within prospective law firm client offices.

Alliances

CompuTrac is a Hewlett-Packard Premier Solution Partner and is a Microsoft Solution Provider Partner.

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Vendor Profile

A Publication from INPUT's Vendor Analysis Program – U.S.

August 1994

CompuTrac, Inc.

Chairman & CEO: Harry W. Margolis
222 Municipal Drive
Richardson, TX 75080
Phone: (214) 234-4241
Fax: (214) 234-6280

Status:	Public
Employees:	84 (1/31/94)
Revenue:	$ 9,853,550
Fiscal Year End:	1/31/94

Key Points

- CompuTrac is a leading provider of integrated law firm management systems.
- Over the last few years, CompuTrac has been growing in size and expense, while the legal industry, its primary business customer, has been facing substantial financial and economic problems. In December 1993, CompuTrac announced a major corporate restructuring in an effort to better bring expenses in line with revenues, resulting in charges to fiscal 1994 financials of $2.5 million.
- In April 1994, CompuTrac discontinued the operations of MediaMagic, an 80%-owned multimedia company originally acquired by CompuTrac during fiscal 1993. MediaMagic has reported significant losses since its acquisition and CompuTrac has decided it cannot continue to invest money or other resources in this company.
- For the quarter ending April 31, 1994, revenue held steady at $2.1 million and net income from the company's core legal automation business reached $260,000.
- During 1993, CompuTrac introduced CompuTrac OPEN!, the company's open systems version of its flagship accounting system for law firms.

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- During fiscal 1993, CompuTrac established a Customer Support Division which is responsible for overall management of the company's customer service programs, revenues and gross profit. Critical support programs were revamped to provide a higher quality level of service to customers.

Company Description

CompuTrac, founded in 1977, develops, markets and supports integrated Hewlett-Packard-based turnkey systems for the legal profession.

- The company's systems assist customers in applications such as timekeeping, billing, disbursements, accounting, litigation support, reporting writing, document storage and retrieval and other practice support applications.

- CompuTrac has installed more than 270 systems in law firms throughout North America.

- CompuTrac is a charter member of the Hewlett-Packard National Program for top Value-Added Resellers.

Operations and Structure

CompuTrac's Legal Division markets and supports the company's integrated law automation systems.

PanaMar Systems is a CompuTrac division established in May 1992 to market video and multimedia services to targeted market segments within the legal industry, selected commercial accounts and the general corporate community. During fiscal 1994, the operations of this division were not material to CompuTrac's business as a whole.

Company Strategy

CompuTrac's long-term commitment is to be a leading provider of high-end financial management systems, software and services to law firms worldwide.

The company's product strategy is to offer sophisticated, comprehensive and easy to use products on open system platforms such as the UNIX operating system and relational database management systems and to integrate its proprietary software with third-party products.

In order to bring expenses in line with declining revenues during the fourth quarter of fiscal 1994, CompuTrac announced a major corporate restructuring and recorded restructuring expenses of $2.5 million.

- The company introduced a series of cost control programs aimed at better managing overhead costs and other discretionary spending and abandoned proposed plans to build a new corporate facility.

- Staffing requirements were evaluated and, as of March 31, 1994, the total staff has been reduced from 103 on July 31, 1993, to approximately 84 employees.

- In addition, software development projects not meeting marketing requirements or part of the company's software product development strategy were abandoned.

- CompuTrac believes that the company is now better positioned to experience profitability in fiscal 1995.

Financials

Fiscal 1994 revenue was $9.9 million, a 17% decrease from fiscal 1993 revenue of $11.9 million. Net losses for fiscal 1994 were $5.4

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million, compared to net income of $270,000 for fiscal 1993.

- Net losses of nearly $5.4 million include restructuring charges of $2.5 million and nonrecurring charges of $500,000 for estimated software project completing costs for certain client contracts.
- A five-year financial summary follows:

CompuTrac, Inc.
Five-Year Financial Summary
($ Thousands, except per share data)

Item	Fiscal Year 1/94	1/93	1/92	1/91	1/90
Revenue	$9,854	$11,921	$12,177	$10,669	$13,744
• Percent change from previous year	(17%)	(2%)	14%	(22%0	20%
Income (loss) before taxes	$(6,366)	$440	$(1,904)	$324	$2,743
• Percent change from previous year	(a) *	123%	(b) (688%)	(88%)	19%
Net income (loss)	$(5,366)	$270	$(1,194)	$151	$1,836
• Percent change from previous year	*	123%	(890%)	(92%)	(11%)
Earnings (loss) per share	$(0.99)	$0.05	$(0.20)	$0.03	$0.31
• Percent change from previous year	(350%)	125%	(767%)	(90%)	(11%)

* *Percent change exceeds 1,000%.*

(a) Includes non-recurring charges of $500,000 for estimated software project completion costs and restructuring charges of $2.5 million.

(b) Includes non-recurring expenses of $606,000 for restructuring and $1.8 million for the write-down of the value of a building.

Fiscal 1994 results were attributed to the following:

- System sales decreased 29% due to an overall decline in the number of new systems sold in fiscal 1994. In addition, the overall costs and resulting sales prices on computer hardware continued to decline, reflecting overall industry trends. Overall decreased sales activity is attributed to economic pressures in the legal marketplace.
- Service and support revenues dropped 7% due to decreased training, support and conversion service revenue due to fewer new system sales for the year.

Interim Results—Revenue for the six months ending July 31, 1994 was $3.8 million, compared to nearly $5.2 million for the same period in 1993. Net losses of $17,740 include $496,000 in losses associated with MediaMagic.

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Market Financials

Virtually 100% of CompuTrac's revenue is derived from the legal profession.

CompuTrac believes it is one of the major suppliers of systems to mid- to large-size law firms.

Revenue Analysis By Product Line

Approximately 40% of CompuTrac's fiscal 1994 revenue was derived from turnkey system sales and 60% from associated support and maintenance services. A three-year summary of source of revenue follows:

CompuTrac, Inc.
Three-Year Source of Revenue Summary
($ Thousands)

	Fiscal Year					
	1/94		1/93		1/92	
Product/Service	Revenue $	Percent of Total	Revenue $	Percent of Total	Revenue $	Percent of Total
System sales	$3,916	40%	$5,510	46%	$6,150	51%
Services and support	5,938	60%	6,411	54%	6,027	49%
Total	$9,854	100%	$11,921	100%	$12,177	100%

Geographic Markets

Virtually 100% of CompuTrac's fiscal 1994 revenue was derived from the U.S. and Canada.

Acquisitions/Divestitures

In April 1994, CompuTrac discontinued the operations of MediaMagic Corporation an 80%-owned developmental state company that designs, markets, manufactures and sells video and audio hardware and software products that are peripheral add-ons to the HP UNIX-based line of workstations.

- CompuTrac acquired its interest in MediaMagic in February 1993 in order to enter the market for multimedia computing.
- MediaMagic incurred losses of $221,000 for fiscal 1994 and losses of $162,000 for the quarter ending April 30, 1994.
- Although MediaMagic products have been well received and sales continue to increase, the prospect for break even on a profit and loss-basis was not expected in the near future and CompuTrac could not continue to divert its attention and resources away from its core business.

Employees

As of March 31, 1994, CompuTrac had 84 employees, segmented as follows:

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Marketing/sales	12
Technical support/product development	49
General and administrative	23
	84

Key Products and Services

CompuTrac OPEN! is the umbrella name used to describe all of CompuTrac's current software products.

- The software runs on all minicomputers in either the HP 3000 Series and HP 9000 Series and provides full interoperability support for Novell NetWare, Banyan Vines and Microsoft LAN Manager.
- The applications run in several different operating system environments, including UNIX, MPE/iX (native HP) and MS/DOS. Additionally, selected applications use Microsoft Windows in a client/server applications environment.
- All CompuTrac OPEN! products are fully integrated with master data files and each other; use the firm-wide Informix relational database or IMAGE/SQL database; and offer access to PC users on a LAN.

Under the CompuTrac OPEN! umbrella are four major product categories or groupings as follows:

- Financial Management Software is the core accounting and financial management system which includes such applications as:
  - Billing and Timekeeping
  - Capture (distributed time and disbursement entry)
  - Management and Financial Reporting
  - Trust Accounting
  - Extended History
  - General Ledger
  - Accounts Payable
  - Network and Device Interface
- Practice Management Software consists of optional software modules and products including such applications as:
  - Conflict of Interest
  - Records Management (optional bar code scanner)
  - Event Management
  - Marketing
  - Profitability Reporting
  - CLS Case Management
  - LawVision Supervisor™ (which provides integration with third-party products such as CompuLaw Docket and SoftSolutions Document Management).
- Executive Information Software includes such applications as Zoom™ (a real-time inquiry tool) and Browse™.
- Programming Tools includes such software applications as:
  - PIE™-Programmatic Interface for the End-User
  - FOCUS, IQ and other third-party SQL reporting products
  - Informix Viewpoint, DBA and WingZ and Informix 4GL and native SQL

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CompuTrac's turnkey system prices range from $80,000 for a low-end legal accounting system to $1.25 million or more for an integrated system with accounting and other integrated applications in a large law firm.

All CompuTrac's systems are sold in conjunction with a maintenance agreement that provides customer training, enhancements and software maintenance services.

- At March 31, 1994, CompuTrac had 146 maintenance agreements in effect, six of which cover an earlier generation of the system.
- Installation support and hardware maintenance services are provided by Hewlett-Packard.

CompuTrac also provides implementation planning, data conversion, installation and custom software development services.

Marketing and Sales

CompuTrac markets its systems through presentations at conventions of regional and national associations of lawyers and law firm administrators. The company also advertises in regional and national journals or periodicals targeting the legal profession. CompuTrac uses direct mailing campaigns and demonstrates its systems at local product shows, industry seminars and local Hewlett-Packard offices.

CompuTrac receives sales leads from its direct sales organization, management consultants, customers and Hewlett-Packard.

Alliances

CompuTrac is a charter member of Hewlett-Packard's Premier Solution Provider Program for top Value-Added Resellers.

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COMPUTRAC, INC.
2222 Municipal Drive
Richardson, TX 75080
(214) 234-4241

Harry W. Margolis, Chairman and CEO
Phillip Yarbrough, President and COO
Public Corporation, AMEX
Total Employees: 105 (7/91)
Total Revenue, Fiscal Year End
1/31/91: $10,628,161

The Company

CompuTrac, Inc., founded in 1977, develops, markets, and supports integrated Hewlett-Packard-based turnkey systems for the legal profession.

- CompuTrac has installed over 235 of its systems in law firms throughout North America.
- CompuTrac is a charter member of the Hewlett-Packard National Program for top Value-Added Resellers. The company also markets a PC-based information retrieval software product for general corporate use.

CompuTrac's strategy is to provide compatibility across the HP-3000 Series family of systems, a broad family of products, an identifiable growth path for its customers, networking and distributed processing capabilities, and effective customer support and services.

Fiscal 1991 revenue was $10.6 million, a 20% decrease from fiscal 1990 revenue of $13.4 million. Net income was $145,000 in fiscal 1991, compared to nearly $1.8 million in fiscal 1990. A five-year financial summary follows:

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COMPUTRAC, INC.
FIVE-YEAR FINANCIAL SUMMARY
($ thousands, except per share data)

	FISCAL YEAR				
ITEM	1/91	1/90	1/89	1/88	1/87
Revenue	$10,628	$13,366	$12,304	$7,399	$9,786
· Percent increase (decrease) from previous year	(20%	9%	66%	(24%)	23%
Income (loss) before taxes	$315	$2,629	$2,690	$(371) (b)	$3,248
· Percent increase (decrease) from previous year	(88%)	(2%)	825%	(111%)	66%
Net income (loss)	$145	$1,761	$2,306 (a)	$(421)	$1,981
· Percent increase (decrease) from previous year	(92%)	(24%)	648%	(121%)	78%
Earnings (loss) per share	$0.02	$0.30	$0.39 (a)	$(0.07)	$0.34
· Percent increase (decrease) from previous year	(93%)	(23%)	657%	(121%)	48%

(a) Fiscal 1989 net earnings include a non-recurring gain of $434,000, or $0.07 per common share, attributed to the company's adoption of SFAS Accounting for Income Taxes during the year.

(b) Includes a net operating loss of $630,761 attributed to the write-down and subsequent liquidation of the company's equity investments in October 1987.

CompuTrac management attributes fiscal 1991 results to the following:

- System sales decreased 24% during fiscal 1991 due to economic pressures in the legal marketplace.
- Services and support revenues increased a nominal 3% due to recurring revenues from an expanded customer base.
- Combined operating, selling, general and administrative, and software development costs increased 17% during fiscal 1991 due primarily to a decrease in capitalized software production costs. Salary expenses and costs for customer support and programming personnel depreciation expenses also increased.
- Additionally, CompuTrac spent over $200,000 on non-recurring charges and consulting fees attributed to its marketing efforts during the year.

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Revenue for the three months ending April 30, 1991 was $3.3 million, a 65% increase over $2.0 million for the same period in 1990. Net income was $182,000, compared to net losses of $245,000 for the same period a year ago.

As of March 31, 1991, CompuTrac had 94 employees. As of July 15, 1991, the company had 105 employees, segmented as follows:

Marketing/sales	18
Technical support/product development	70
General and administrative	15
	105

Key Products and Services

Approximately 52% of CompuTrac's fiscal 1991 revenue was derived from turnkey system sales and 48% from associated support and maintenance services.

A three-year summary of source of revenue follows:

COMPUTRAC, INC.
THREE-YEAR SOURCE OF REVENUE SUMMARY
($ thousands)

	FISCAL YEAR					
	1/91		1/90		1/89	
ITEM	REVENUE $	PERCENT OF TOTAL	REVENUE $	PERCENT OF TOTAL	REVENUE $	PERCENT OF TOTAL
System sales	$5,533	52%	$8,403	63%	$8,316	68%
Services and support	5,095	48%	4,963	37%	3,988	32%
TOTAL	**$10,628**	**100%**	**$13,366**	**100%**	**$12,304**	**100%**

The CompuTrac Law Firm Management System is an integrated HP 3000-based turnkey system that automates word processing and provides tools for electronic mail, back-office financial and administrative functions, and front-office practice support and information retrieval. This system is targeted to firms with over 50 attorneys.

- A fourth-generation version of the system, Law Firm Management System IV, was introduced during fiscal 1991. The system is designed for Hewlett-Packard's new 922 through 980 models of the HP-3000 series computers.

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- Applications supported by the CompuTrac Law Firm Management System include the following:

  - Timekeeping: The operator enters data supplied by the lawyers and other timekeepers, including identity of the timekeeper, date, client number, client matter, time, and description of the work performed. The time charged to a given file is computed at the hourly rate of the timekeeper based on the billing rate assigned to the file or the attorney. At the time of input, the operator can override the computed rate if the timekeeper has so indicated on the time slip. At the time of billing the client, the billing attorney may make further adjustments to the bill.

  - Client Billing: The standard billing memorandum contains a summary of time for each timekeeper, billing history, individual time entries, disbursements, and similar information. The billing attorney reviews the data, fills in the amount to be billed, and indicates any special handling of the bill. The system permits customized treatment of different clients' billing, depending on the specificity of detail required or requested.

  - Client Disbursements: This application incorporates summary disbursements billed to the client in a lump sum, such as photocopies and long-distance phone calls, and itemized disbursements such as filing fees.

  - Accounting and Reporting: The basic applications include accounts receivable, work-in-progress, management reports, file indexing, and selective report generation.

  - DARWIN: This application has a variety of text-oriented and field-oriented applications. Law firm uses include work product retrieval, litigation support, personnel records, recruiting data bases, conflict of interest system, indexing of word processing documents, library cataloging, will indexing, and brief banks.

  - LawVision is a family of applications for IBM-compatible PCs on a LAN to which the HP-3000 accounting system is attached. LawVision applications are available for time entry, lawyer inquiry, lawyer report-review, and system access.

  - Other programs available for purchase include general ledger/checkwriter, accounts payable, report writer, conflict of interest, docket/calendar control, photocopy interface, telephone systems interface, and trust accounting.

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- Turnkey system prices ranges from $80,000 for a low-end legal accounting system to $1.25 million or more for an integrated system in a large law firm. Historically, the average system price has been in the $180,000 to $250,000 range.

Law Firm Management System 1520, introduced during fiscal 1991, was developed for law firms with 20 to 70 attorneys and opens a new tier of the law firm market. The complete turnkey system is based on HP-3000 computers and ranges in price from $80,000 to $150,000.

All of CompuTrac's turnkey systems are sold in conjunction with a maintenance agreement that provides customer training, enhancements, and software maintenance services. As of March 31, 1991, CompuTrac had 144 maintenance agreements in effect, 27 of which cover an earlier generation system..

- Installation support and hardware maintenance services are provided by Hewlett-Packard.

CompuTrac is also currently marketing the DARWIN software package to users outside the legal profession.

Industry Markets

The majority of CompuTrac's revenue is derived from the legal profession.

Geographic Markets

Virtually 100% of CompuTrac's fiscal 1991 revenue was derived from North America.

Computer Hardware

CompuTrac has the following computers installed at its headquarters for research and development and customer support:

- 1 HP-3000 Series 960
- 1 HP-3000 Series 935
- 1 HP-3000 Series 925 LX
- 1 HP-3000 Series 922
- 1 HP-3000 Series 920
- 3 HP-1000s
- 1 HP Micro 3000 GX
- 1 HP Micro 3000

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COMPUTRAC, INC.
2222 Municipal Drive
Richardson, TX 75080
(214) 234-4241

Harry W. Margolis, Chairman
Phillip Yarbrough, President
Public Corporation, AMEX
Total Employees: 90
Total Revenue, Fiscal Year End
1/31/89: $12,304,193

The Company

CompuTrac, Inc., founded in 1977, develops, markets, and supports integrated Hewlett-Packard-based turnkey systems for the legal profession. CompuTrac is a member of the Hewlett-Packard National Program for top Value-Added Resellers. The company also markets a PC-based information retrieval software product for general corporate use.

CompuTrac's strategy is to provide compatibility across the HP-3000 Series family of systems, a broad family of products, an identifiable growth path for its customers, networking and distributed processing capabilities, and effective customer support and services.

Fiscal 1989 revenue reached $12.3 million, a 66% increase over fiscal 1988 revenue of $7.4 million. Net income for fiscal 1989 reached $2.3 million, compared to a net loss of $420,624 for fiscal 1988. A five-year financial summary follows:

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COMPUTRAC, INC.
FIVE-YEAR FINANCIAL SUMMARY
($ thousands, except per share data)

	FISCAL YEAR				
ITEM	1/89	1/88	1/87	1/86	1/85
Revenue (a)	$12,304	$7,399	$9,786	$7,928	$6,166
• Percent increase (decrease) from previous year	66%	(24%)	23%	29%	221%
Income (loss) before taxes	$2,690	$(371) (c)	$3,248	$1,957	$1,200
• Percent increase (decrease) from previous year	825%	(111%)	66%	63%	338%
Net Income (loss)	$2,306 (b)	$(421)	$1,981	$1,116	$720
• Percent increase (decrease) from previous year	648%	(121%)	78%	55%	580%
Earnings (loss) per share	$0.39 (b)	$(0.07)	$0.34	$0.23	$0.15
• Percent increase (decrease) from previous year	657%	(121%)	48%	53%	600%

(a) Revenues for years prior to fiscal 1988 have been restated to reflect a change in the method of accounting for interest income.

(b) Fiscal 1989 net earnings include a non-recurring gain of $434,000, or $0.07 per common share, attributed to the company's adoption of SFAS Accounting for Income Taxes during the year.

(c) Includes a net operating loss of $630,761 attributed to the write-down and subsequent liquidation of the company's equity investments in October 1987.

System sales increased 125% during fiscal 1989. CompuTrac management attributes revenue growth to further acceptance by the legal community of its office automation solutions, greater price-performance offerings from Hewlett-Packard, and the success of a redirection of marketing focus for larger law firms begun during the latter part of fiscal 1988.

- Net income resulted from a 66% increase in revenue, with only a 12% increase in operating and selling expenses.

Revenue declines during fiscal 1988 were attributed to a 47% decline in systems sales resulting from an incomplete referenceable user base for the company's combined data processing/word processing systems during the period and a late redirection of its marketing focus to larger law firms no longer

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relying on outside consultants to select their data processing vendors.

Software development costs, prior to capitalization, were approximately $1.7 million (9% of revenue) in fiscal 1989, $1.4 million (18% of revenue) in fiscal 1988, and $802,034 (8% of revenue) in fiscal 1987.

- Increases in development costs during fiscal 1988 were associated with CompuTrac's DARWIN and CenDec software products, as well as updates and enhancements to the company's existing products.

In April 1989, CompuTrac signed an agreement with Lanier Business Systems (a division of Harris Corporation) which gives Lanier's legal sales force the right to market CompuTrac's HP-based systems in selected markets throughout the U.S. As a result of this agreement, CompuTrac will increase the number of trained representatives selling its products sevenfold by the end of 1989.

During fiscal 1988, CompuTrac formed a Client Services Division, dedicated to support customer implementation. The company also expanded staff in the areas of implementation and consulting services, telephone support, and education and training.

As of January 31, 1989, CompuTrac had 80 employees, segmented as follows:

Marketing/sales	17
Technical support/product development	49
General and administrative	14
	80

Key Products and Services

Approximately 68% of CompuTrac's fiscal 1989 revenue was derived from turnkey system sales and 32% from associated support and maintenance services.

A three-year summary of source of revenue follows:

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COMPUTRAC, INC.
THREE-YEAR SOURCE OF REVENUE SUMMARY
($ thousands)

	FISCAL YEAR					
	1/89		1/88		1/87	
ITEM	REVENUE $	PERCENT OF TOTAL	REVENUE $	PERCENT OF TOTAL	REVENUE $	PERCENT OF TOTAL
System sales	$8,316	68%	$3,698	50%	$6,931	71%
Services and support	3,988	32%	3,701	50%	2,855	29%
TOTAL	**$12,304**	**100%**	**$7,399**	**100%**	**$9,786**	**100%**

The CompuTrac Law Firm Management System is an integrated HP 3000-based turnkey system that automates word processing and provides tools for electronic mail, back-office financial and administrative functions, and front-office practice support and information retrieval.

- The systems are marketed to mid- to large-size law firms throughout North America.

- Applications supported by the CompuTrac Law Firm Management System include the following:

  - Timekeeping: The operator enters data supplied by the lawyers and other timekeepers, including identity of the timekeeper, date, client number, client matter, time, and description of the work performed. The time charged to a given file is computed at the hourly rate of the timekeeper based on the billing rate assigned to the file or the attorney. At the time of input, the operator can override the computed rate if the timekeeper has so indicated on the time slip. At the time of billing the client, the billing attorney may make further adjustments to the bill.

  - Client Billing: The standard billing memorandum contains a summary of time for each timekeeper, billing history, individual time entries, disbursements, and similar information. The billing attorney reviews the data, fills in the amount to be billed, and indicates any special handling of the bill. The system permits customized treatment of different clients' billing, depending on the specificity of detail required or requested.

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- Client Disbursements: This application incorporates summary disbursements billed to the client in a lump sum, such as photocopies and long-distance phone calls, and itemized disbursements such as filing fees.

- Accounting and Reporting: The basic applications include accounts receivable, work-in-progress, management reports, file indexing, and selective report generation.

- DARWIN: This application has a variety of text-oriented and field-oriented applications. Law firm uses include work product retrieval, litigation support, personnel records, recruiting data bases, conflict of interest system, indexing of word processing documents, library cataloging, will indexing, and brief banks.

- DARWIN/ACCESS is a microcomputer-based software product that works with DARWIN to provide distributed access to DARWIN data bases and files residing on a minicomputer. DARWIN/ACCESS automates the process of retrieving word processing files, spreadsheet files, and other application files from a central storage location and loads them into appropriate software on a microcomputer.

- Other programs available for purchase include general ledger/checkwriter, word processing, accounts payable, report writer, conflict of interest, docket/calendar control, photocopy interface, optical character reader interface, telephone systems interface, and trust accounting.

- Turnkey system prices ranges from $50,000 for an accounting system in a smaller law firm to $1,250,000 or more for an integrated system for word processing, accounting, and other applications in a large law firm.

- All of CompuTrac's turnkey systems are sold in conjunction with a maintenance agreement that provides customer training, enhancements, and software maintenance services. As of March 31, 1989, CompuTrac had 136 maintenance agreements in effect.

- Installation support and hardware maintenance services are provided by Hewlett-Packard.

During 1987, CompuTrac introduced "CenDec", a software applications integrator that combines the performance advantage of decentralized microcomputer applications with minicomputer filing systems.

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- CenDec was originally designed for office environments with heavy word processing usage. Word processing, spreadsheet, or graphics documents created at PC workstations are automatically stored in the host minicomputer.

- CenDec currently supports WordPerfect and AdvanceWrite word processing software and runs on most IBM PC/AT and compatible microcomputers linked with HP-3000 Series minicomputers.

CompuTrac is also currently marketing the DARWIN software package to users outside the legal profession.

- The company is providing American Airlines with a text management system.

- CompuTrac is working with Hewlett-Packard on systems and software for the U.S. Navy.

Industry Markets

The majority of CompuTrac's revenue is derived from the legal profession.

Geographic Markets

Virtually 100% of CompuTrac's fiscal 1989 revenue was derived from North America.

CompuTrac has systems installed in 35 U.S. states, four Canadian provinces, and Puerto Rico.

Computer Hardware

CompuTrac has the following computers installed at its headquarters for research and development and customer support:

- 1 HP-3000 Series950
- 1 HP-3000 Series925
- 1 HP-3000 Series 70
- 3 HP-3000 Series 37s
- 3 HP-1000s
- 1 HP Micro 3000 GX

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FINANCIAL UPDATE TO PROFILE DATED JULY 1986

COMPUTRAC, INC.
222 Municipal Drive
Richardson, TX 75080
(214) 234-4241

Harry W. Margolis, Chairman and President
Public Corporation, AMEX
Total Employees: 67
Total Revenue, Fiscal Year End 1/31/87: $10,376,014

COMPUTRAC, INC.
FIVE-YEAR FINANCIAL SUMMARY
($ thousands, except per share data)

FISCAL YEAR / ITEM	1/87	1/86	1/85	1/84	1/83
Revenue	$ 10,376	$ 8,139	$ 6,380	$ 2,080	$ 2,685
. Percent increase (decrease) from previous year	27%	28%	207%	(23%)	(15%)
Income (loss) before taxes	$ 3,248	$ 1,957	$ 1,200	$ (505)	$ 435
. Percent increase (decrease) from previous year	66%	63%	338%	(216%)	(48%)
Net income (loss)	$ 1,981	$ 1,116	$ 720	$ (150)	$ 348
. Percent increase (decrease) from previous year	78%	55%	580%	(143%)	(29%)
Earnings (loss) per share (a)	$ 0.34	$ 0.23	$ 0.15	$ (0.03)	$ 0.09
. Percent increase (decrease) from previous year	48%	53%	600%	(133%)	N/A

(a) Restated to reflect a 3-for-2 stock split on April 7, 1986, effected in the form of a 50% stock dividend.

- Revenue for the six months ending July 31, 1987, was $4.2 million, compared to $5.1 million for the same period in 1986. Net income was $608,971, compared to $892,591 for the same period a year ago.

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SOURCE OF REVENUE

- Approximately 67% of CompuTrac's fiscal 1987 revenue was derived from turnkey system sales, 28% from associated software support and maintenance services, and the remaining 5% from interest income. A three-year summary of source of revenue follows ($ thousands):

FISCAL YEAR / ITEM	1/87		1/86		1/85	
	Revenue	Percent of Total	Revenue	Percent of Total	Revenue	Percent of Total
System sales	$6,931	67%	$5,940	73%	$5,202	82%
Services and support	2,855	28	1,988	24	964	15
Interest income	590	5	211	3	214	3
Total	$10,376	100%	$8,139	100%	$6,380	100%

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INPUT

Vendor Profile

A Publication from INPUT's Vendor Analysis Program – U.S.

March 1996

Compuware Corporation

Chairman & CEO: Peter Karmanos, Jr.
President & COO: Joseph A. Nathan
31440 Northwestern Highway
P.O. Box 9080
Farmington Hills, MI 48333-9080
Phone: (810) 737-7300
Fax: (810) 737-2718

Status:	Public
Employees:	4,800 (3/96)
Revenue, FYE 3/31/96:	$533,877,000
Revenue, 9 mos. ending 12/31/95:	$427,426,000

Key Points

- Compuware is a leading worldwide provider of systems software products and professional services that help information technology professionals efficiently develop, implement and support the applications that run their businesses.
- Compuware's target market is the 15,000 largest enterprises worldwide.
- Compuware's client/server product revenue reached approximately $95 million in fiscal 1995, up 70% over the previous year.
- In early 1996, Compuware expanded its professional services capabilities with the acquisition of two firms—Minneapolis-based Technalysis Corporation and Icons GmbH, a professional services firm based in Germany.
- In November 1995, Compuware expanded its EcoTOOLS system management product line with the acquisition of CoroNet Systems.
- Compuware's largest acquisition—Uniface Holding B.V. in May 1994—expanded the company's product line to include the

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UNIFACE design and development environment for client/server applications.

Company Description

Compuware, founded in 1973, provides systems software products and professional services.

- The company offers 50 products for designing and developing applications, for testing and implementing applications, and for product application management. Compuware's products are used by more than 8,800 customers worldwide.

- Working across a spectrum of technologies, including mainframe, midrange and client/server platforms, Compuware professional services staff provides business systems analysis, design, programming and implementation, software conversion, and systems planning and consulting.

Organization and Structure

Compuware is organized into the Products Division and the Professional Services Division.

- The Products Division includes two groups—The Enterprise Systems Group, which is responsible for testing and implementation products; and the Client/Server Systems Group, which is responsible for design and development, and production application management products.

- The Professional Services Division, with more than 2,400 employees, provides a range of services, including business systems analysis, design, programming, and implementation, as well as software conversion and systems planning and consulting.

Compuware's key executives are listed below:

Key Executives

Name	Title
Peter Karmanos, Jr.	Chairman & CEO
Joseph A. Nathan	President & COO
Ralph A. Caponigro	SVP & CFO
Karl E. Christen	SVP & CTO
Henry A. Jallos	SVP, Worldwide Sales
W. James Prowse	SVP Marketing & Communications
Stephen H. Fagan	SVP, Enterprise Software
John N. Shevillo	SVP, Professional Services

In addition to its headquarters in Farmington Hills (MI), Compuware has more than 45 offices across the U.S., Canada, Europe, and the Asia/Pacific region that support the company's software products.

Professional services are marketed through approximately 20 offices in the U.S., Canada and Europe.

Company Strategy

Compuware is positioning the company as a provider of quality software and services designed to increase productivity. Compuware's enterprise-wide productivity solutions focus on business-critical applications, from conception through production.

- The company historically focused on the run-time environment in the mainframe market, where it has extensive experience and has long-term customer relationships.

- Compuware is leveraging its experience and relationships by expansion into the client/server market through internal development and acquisitions. The company now offers client/server products and professional services for designing and

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developing applications, for testing and implementing applications and for production application management.

- Its UNIFACE and EcoSystems products are penetrating the client/server application development and systems management environments. Compuware has trained a significant segment of its professional services staff in UNIFACE technology so it can assign such personnel to fulfill client/server-oriented consulting and implementation requirements.

In the mainframe market, Compuware intends to remain focused on developing, marketing and supporting run-time programmer productivity software and to work closely with its customers to meet their evolving needs.

- The company has chosen not to compete in the application development and systems management environments of the mainframe market because these are mature markets served by several large companies, including IBM, Computer Associates/LEGENT and BMC Software.

- By providing professional services in conjunction with its mainframe products, the company can provide a total solution to its clients, affording the company a competitive advantage.

Financials

Compuware's fiscal 1995 revenue reached $533.9 million, a 35% increase over fiscal 1994 revenue of $394.3 million. Net income was $62.1 million, down slightly from net income of $62.3 million for fiscal 1994.

- Fiscal 1995 results include a total of approximately $19.1 million in restructuring and merger-related costs associated with the acquisition, restructuring and integration of Uniface and $12 million in charges for purchased research and development incurred in connection with the purchase of Simon and Oliver products from Advanced Programming Techniques, Ltd.

- In the five-year summary that appears on the following page, financials prior to fiscal 1995 have been restated to reflect the pooling-of-interests acquisition of Uniface in May 1994.

Compuware management attributed fiscal 1995 results to the following:

- Software license fees increased 37%. All of the company's product families experienced growth in license sales due primarily to: the expansion of Compuware's subsidiaries in Japan and the Asia/Pacific region ; an increase in the number of the company's independent distributors; the sale of new products; and expansion of the European sales force.

- Maintenance fee revenue increased 3% due to growth in the number of installed copies of its products and a relatively steady rate of maintenance contract renewals.

- Professional services revenue increased 37%, due primarily to increased business at new and existing clients equal to $18.5 million, $9.2 million and $4.0 million at Compuware's Farmington Hills (MI), Milwaukee (WI), and Colorado Springs (CO) branches, respectively; and a $4.1 million increase related to Uniface.

- Revenue from North American operations increased 24%. International revenue increased 61%.

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Compuware Corporation
Five-Year Financial Summary
($ Millions, except per share data)

Item	Fiscal Year 3/95	3/94	3/93	3/92	3/91
Revenue	$533.9	$394.3	$304.6	$220.6	$169.9
• Percent change from previous year	35%	39%	38%	30%	N/A
Income (loss) before taxes	$95.2	$93.9	$54.0	$(29.0)	$13.9
• Percent change from previous year	(a)(b) 1%	74%	(c) 252%	(d) (309%)	N/A
Net income (loss)	$62.1	$62.3	$37.5	$(24.1)	$10.0
• Percent change from previous year	--	66%	256%	(341%)	N/A
Earnings (loss) per share	$1.30	$1.34	$0.89	N/A	N/A
• Percent change from previous year	(3%)	51%	N/A		

(a) Includes $10.5 million in restructuring and certain merger-related costs, plus $8.5 million in additional merger costs associated with the acquisition of Uniface.

(b) Includes $12 million in charges for purchased research and development associated with the purchase of Simon and Oliver products.

(c) Includes $6.5 million in charges related to purchased research and development.

(d) Includes charges of $32.8 million related to the acquisition of XA Systems and $19.7 million for deferred compensation expenses.

Research and development costs incurred internally were $45.7 million, $35.0 million, and $27.8 million during fiscal 1995, 1994, and 1993, respectively.

Revenue Analysis by Product/Service

Approximately 42% of Compuware's fiscal 1995 revenue was derived from software license fees, 29% from software maintenance fees, and the remaining 29% from professional services.

A three-year summary of source of revenue is shown on the following page.

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Compuware Corporation
Three-Year Source of Revenue Summary
($ Millions)

	Fiscal Year					
	3/95		3/94		3/93	
Product/Service	Revenue $	Percent of Total	Revenue $	Percent of Total	Revenue $	Percent of Total
Software license fees	$223.6	42%	$163.5	42%	$117.4	38%
Maintenance fees	153.8	29%	116.4	29%	90.3	30%
Professional services	156.5	29%	114.4	29%	96.9	32%
Total	$533.9	100%	$394.3	100%	$304.6	100%

Interim Results

Revenue for the nine months ending December 31, 1995 reached $427.4 million, a 12% increase over $381.2 million for the same period in 1994.

- Software license fees declined 7% to $144.1 million due to a 41% decrease in application development product sales, which was partially offset by a 66% increase in sales of client/server systems management products. Mainframe product sales also increased 7%.
- Maintenance fee revenue increased 21% to $135.6 million, due to growth in the number of installed copies of its products.
- Professional services revenue increased 31% to $147.7 million, due primarily to increased business at new and existing clients amounting to $9.6 million and $8.2 million at the company's Farmington Hills (MI) and Milwaukee (WI) branches, respectively.
- For the nine months ending December 31, 1995, approximately 34% of revenue came from software products, 32% from software maintenance fees and 34% from professional services.

Net income was $19.2 million (which includes charges for purchased research and development of $24.9 million associated with the acquisition of CoroNet Systems in November 1995), compared to net income of $40.1 million for the same period a year ago (which includes special charges of $22.5 million related to the acquisition of Uniface and the Simon and Oliver products).

Market Financials

Compuware focuses on the world's 15,000 largest commercial users of information technology.

The company has clients in banking, insurance, telecommunications, manufacturing, government services and other industries.

Geographic Markets

Compuware derived approximately 64% of its fiscal 1995 revenue from North America, 26% from Europe and the remainder from other international operations.

A three-year geographic source of revenue summary appears on the following page.

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Compuware Corporation
Three-Year Geographic Source of Revenue Summary
($ Millions)

	Fiscal Year					
	3/95		3/94		3/93	
Geographic Market	Revenue $	Percent of Total	Revenue $	Percent of Total	Revenue $	Percent of Total
U.S.	$344.3	64%	$276.8	70%	$214.0	70%
European subsidiaries	139.8	26%	103.6	26%	80.2	26%
Other international	49.8	10%	13.9	4%	10.4	4%
Total	$533.9	100%	$394.3	100%	$304.6	100%

Acquisitions

In January 1996, Compuware announced its intention to acquired Technalysis Corporation for approximately $30 million. The acquisition will be accounted for as a purchase.

- Technalysis, based in Minneapolis, is a professional services firm that provides software analysis, design and programming services.

- Technalysis reported revenue of approximately $19 million for 1995.

In January 1996, Compuware acquired Icons GmbH, a professional services firm located in the Duesseldorf/Dortmund area of Germany. The acquisition will be accounted for as a purchase.

- Icons, with 35 employees, provides value-added information technology professional services in Germany. The company has a broad base of project management expertise and has been involved with many large UNIFACE projects in the German market. Icons also has experience in integrating desktop applications into the SAP R/3 environment.

- Icons will become part of Compuware GmbH.

In February 1996, Compuware announced it had terminated acquisition talks with Minneapolis-based Born Information Services Group, a computer-systems staffing firm.

In November 1995, Compuware acquired CoroNet Systems, Inc. of Los Altos (CA) for approximately $27 million. The acquisition was accounted for as a purchase.

- CoroNet is in the process of developing client/server network applications performance management tools. Upon completion, the CoroNet product (renamed EcoNET) is expected to provide a link between network and systems management, enabling network managers to see who is using the network and for what purpose.

In September 1995, Compuware acquired the remaining outstanding common stock of Compuware Nordic AS for approximately $9.4 million. Nordic is a majority owned subsidiary that distributes Compuware's products in Norway and Denmark.

In June 1994, Compuware acquired the Simon and Oliver interactive analysis and debugging products of CICS and batch environments

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from Advance Programming Techniques, Ltd. for $17.5 million.

In May 1994, Compuware acquired Uniface Holding B.V. for nearly 7 million shares of Compuware common stock.

- Uniface provides its UNIFACE client/server development tools for enterprise applications and associated professional services.
- Uniface had revenue of approximately $64 million and $42.9 million for the fiscal years ending March 31, 1994 and March 31, 1993, respectively.

In March 1994, Compuware acquired Computer People Unlimited for 820,000 shares of Compuware common stock. The acquisition was accounted for as a pooling of interests.

- Computer People provided professional software services. Computer People had revenue of approximately $31.1 million and $26.7 million for the fiscal years ending March 31, 1994 and March 31, 1993, respectively.
- The operations of Computer People have been merged into Compuware.

During 1994, Compuware acquired Meta Technologies, Inc., a Dallas-based professional services firm with a base of application development, training, consulting and repository design clients.

In August 1993, Compuware acquired EcoSystems Software, Inc. for approximately 651,000 shares of Compuware common stock in a pooling-of-interests transaction. EcoSystems provides production application management software for UNIX client/server applications.

In January 1993, Compuware purchased the Eyewitness fault diagnosis product line from Landmark Systems Corporation for $12.4 million.

Employees

As of March 31, 1995, Compuware had 4,105 employees (including its Australian, Brazilian, Canadian, Japanese and European subsidiaries), segmented as follows:

Product sales, sales support and marketing	802
Research and development	404
Product maintenance and customer support	279
Professional services marketing and delivery	2,049
General and administrative	571
	4,105

The company currently has approximately 4,800 employees, including more than 2,800 people in Compuware's Professional Services Division.

Key Products and Services

Compuware's software products and professional services are summarized below.

Software Products

Compuware develops, markets and supports an integrated line of mainframe testing and implementation software products, as well as client/server production application management and application development products.

Testing and Implementation products provide programmer productivity in testing, debugging and maintaining large-scale application software. These products are grouped into four product families as follows:

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- File and Data Management products include:
  - File-AID (for TSO/MVS, IMS, CICS, DB2 and PC workstations)
  - DBA-XPERT (for DB2 and Oracle)
  - DATA-XPERT, for testing client/server applications
- Fault Diagnosis products include:
  - Abend-AID (for TSO/MVS, VSE, IMS, CICS, DB2)
  - CICS Abend-AID/FX
  - Fault-XPERT (for OS/2, HP-UX, AIX, Microsoft Windows)
- Interactive Analysis and Debugging products include:
  - XPEDITER (for TSO/MVS, VSE, IMS, CICS, DB2 and PC workstations)
  - XPEDITER+ (for OS/2)
  - PATHVU (for PC workstations)
  - RETROFIT (for PC workstations)
  - Simon, interactive analysis and debugging for batch applications with PL/1 support
  - Oliver, interactive analysis and debugging for CICS with PL/1 support
- Automated Testing products include:
  - PLAYBACK (for TSO/MVS, VSE, IMS, CICS, DB2 and PC workstations and client/server applications)
  - Hiperstation (for TSO/MVS, CICS)

Design and Development products speed application development and insulate applications from changes in underlying technology.

- UNIFACE is Compuware's client/server development environment specifically designed for building enterprise-scale business applications. UNIFACE employs a model-driven approach to development.
- UNIFACE runs on Microsoft Windows, DOS, VMS, MPE/IX, Macintosh System 7 and a range of UNIX platforms.
- In addition, applications built with UNIFACE have access to relational and nonrelational data sources, including Oracle, Sybase, Informix, Ingres DB2/6000 and Rdb.
- UNIFACE WebEnable, announced in March 1996, allows developers to build and deploy business-critical applications for the World Wide Web. The product is the first step in the company's strategy to help customers exploit the Internet/Intranet for enterprise computing.

Production Application Management products provide access to and control over entire systems of computers, operating systems, networks and applications, including distributed databases and other client/server applications. Products include the following:

- EcoDBA
- EcoNET, a network management system
- EcoTOOLS, for monitoring application and UNIX operating systems for fault and performance problems
- RemoteControl/2, client/server management software for distributed OS/2 applications

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In February 1996, Compuware announced planned support for the next generation of UNIX technology announced by Hewlett-Packard and the Santa Cruz Operation.

Product Maintenance and Customer Support

All customers who subscribe to Compuware's maintenance and support services are entitled to receive technical support and advice, including problem resolution services and assistance in product installation, error corrections, and any product enhancements released by Compuware during the maintenance period.

- Maintenance and support services are provided primarily by telephone access to technical personnel located in Farmington Hills (MI), Alameda and Los Gatos (CA), and in offices of Compuware's European subsidiaries and distributors.
- Perpetual licensees have the option of renewing their maintenance agreements each year for an annual fee of approximately 15% of the then-current list price of the licensed product. Perpetual licensees also have the option of purchasing maintenance for up to five years on a prepaid basis.
- In fiscal 1995, approximately 97% of Compuware's existing customers renewed at least one of their maintenance arrangements.

Professional Services

The objective of Compuware's professional services is to create long-term relationships with clients in which its professional staff join with the client's information systems organization to plan, design, program, implement and maintain technology-based solutions to achieve client business goals.

- Typically, the professional services staff is integrated with the client's development team on a specific application or project.
- Professional services staff work primarily at client sites or at Compuware's Development Centers in Farmington Hills (MI), Milwaukee (WI), Alameda (CA) and Bethesda (MD).

Compuware technical specialists have experience across a spectrum of technologies, including mainframe, midrange and client/server platforms.

Services provided include the following:

- *Strategy & Planning*, including strategic systems planning, technology architecture planning, emerging technology evaluation, asset management planning, and IT organizational design and skill profiling
- *Requirements & Design*, including detailed business modeling, business process redesign, information engineering and network design
- *Construction*, including application development, conversions, development center services, testing services and education and training
- *Production*, including application assessment, application maintenance, legacy system renewal, technical support services, capacity planning, performance tuning, data management, operational reviews and network management

In March 1996, Compuware unveiled its Production 2000 strategy that combines its software products with professional services staff and an automated process to provide an integrated approach to address year-2000 date-change projects from start to finish.

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The company's Education Resources Group also offers more than 40 educational courses covering a variety of technologies.

Marketing and Sales

Compuware markets its software products through a combination of direct sales, distributors, value-added resellers and OEMs in 37 countries around the world. The company has direct sales forces in the U.S., Canada, Europe, Japan, Australia and Brazil.

Compuware markets its professional services in North America and Europe primarily through account managers.

- Senior professional services executives support branch marketing efforts by identifying new business opportunities and making joint sales calls. This marketing structure enables Compuware to keep abreast of, and respond quickly to, the changing needs of its clients and to call on the actual users of Compuware's professional services on a regular basis.

- Uniface professional services in Europe are generally provided in conjunction with product sales.

Alliances

In March 1996, Compuware announced that it will resell SOLID Server for UNIFACE under an agreement with Solid Information Technology Ltd., based in Helsinki (Finland). SOLID Server is an advanced, SQL database that supports the UNIFACE client/server application development environment.

In February 1996, Compuware announced it will support Tivoli Systems' Applications Management Specification (AMS) with its Eco suite of networked applications management products.

In December 1995, Compuware and Digital Equipment Corporation announced their partnership in the Affinity program, a business alliance that supports the integration of Windows NT and OpenVMS. Through this relationship, Compuware's client/server tools support Digital's 64-bit computing environments across the enterprise.

In October 1995, Compuware formed an alliance with Digital Equipment Corporation whereby Compuware's EcoTOOLS will support the Digital UNIX platform and Alpha workstations. Both companies will jointly sponsor customer seminars, training courses, and conferences.

In April 1995, Compuware signed a worldwide distribution agreement with Mercury Interactive Corporation of Santa Clara (CA) whereby Compuware will market a set of Mercury Interactive's automated testing products for several client/server run-time environments to Compuware's 8,000 plus software users worldwide.

Compuware is an HP International Channel Partner and an HP OpenView Premier Partner.

Competition

Compuware's software product competitors include BMC Software, Computer Associates (including LEGENT products), Gupta, Informix, Oracle, Platinum Software, Powersoft, Sybase and VIASOFT.

Professional services competitors include Andersen Consulting, EDS, IBM ISSC, and numerous small, regional and local firms in the same areas in which Compuware has professional services offices.

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INPUT Assessment

Compuware's strengths include:

- An established base of mainframe software clients, with revenue increasing
- A successful expansion to client/server offerings
- Its ability to provide a total solution through software products and professional services

Challenges over the coming year include:

- Completing the integration of acquired businesses
- Successfully releasing client/server versions of all of its product lines

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COMPUWARE CORPORATION
31440 Northwestern Highway
P.O. Box 9080
Farmington Hills, MI 48333-9080
(313) 737-7300

Peter Karmanos, Jr., Chairman and CEO
W. James Prowse, President
Private Corporation
Total Employees: 1,148
Total Revenue, Fiscal Year End
3/31/90: $120,000,000

The Company

Compuware Corporation, founded in 1973, provides professional services, education and training, and systems software products for mainframe, midrange, and microcomputers.

Total fiscal 1990 revenue reached $120 million, a 14% increase over fiscal 1989 revenue of $105 million. Compuware attributes the revenue growth to increased software sales and maintenance services as well as increases in professional services and education revenues.

Compuware has four operating divisions: The Professional Services Division, which offers programming and project management services; the Systems Software Division, which offers troubleshooting and productivity tools; the Educational Resources Division, which offers training to data processing professionals; and the Vertical Markets Division, which provides industry-specific products.

As of February 28, 1990, Compuware had 1,148 employees, segmented as follows:

Employee Category	Number	Percent	Revenue Per Employee
Marketing and sales/ customer support	340	30%	--
Research and development	94	8%	--
Computer operations	521	45%	--
General and administrative	193	17%	--
Total	1,148	100%	$104,530

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Key Products and Services

Compuware offers its products and services through four divisions as follows:

- The Software Products Division contributed 65% to fiscal 1990 revenue, offers the following tools, customer orientation and support services.
  - Abend-AID[R] is a programmer's troubleshooting product. Options include COBOL, ISPF, IMS, IDMS, DOS, DL/1, and DB2.
  - CICS Abend-AID[R] provides expert system diagnostics for all CICS transaction abends.
  - File-AID[R] provides access to data, regardless of the method or file organization. Options include SPF, Batch, and ROSCOE.
  - Compuware CICS dBUG-AID[R] allows programmers to test and debug interactively.
  - Compuware CICS Playback[R] allows programmers to completely test new and revised CICS systems under low- and high-volume conditions. It also provides facilities to recover production transactions, estimate the impact of changes such as transaction volumes or terminal network size, and enhance help desk facilities.
  - Compuware CICS RADAR[R] is a system programmer productivity tool designed to identify the location and cause of CICS region outages.
  - Compuware CICS SIMULCAST[R] provides the capability to establish 'live' screen conferences between users and technical personnel at different locations and for presenting simultaneous CICS sessions to multiple terminals within a CICS region.
- The Professional Services Division provides systems software support, systems and applications programming, data base design, program conversion and implementation, and project management.
  - Project Services is the program developed to provide project management to the Fortune 500. Under this program, Compuware assumes overall management of the project, with personnel located either on the client's site or at Compuware's Development Center.

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- The Professional Services division contributed 30% to fiscal 1990 revenue.

- The Vertical Markets Division contributed 3% to fiscal 1990 revenue and offers the following vertical market products:

  - power-base[R] is a relational data base management software package for use with IBM and compatible microcomputers.

  - Printer's Plus[R], a productivity tool for the small-press printing industry. Applications include accounts receivable, job estimating and invoicing, customer identification, sales reports, and miscellaneous bookkeeping.

- The Educational Resources Division contributed 2% to fiscal 1990 revenue.

  - The Migrations Training program is designed to train programmers who are involved in migrating from one data processing environment to another. These programs provide a series of courses to enhance a programmer's knowledge of and practical experience with the new environment. Programs are available for migrations from non-IBM environments to IBM, as well as migrations within an IBM environment. Migration training packages can be designed to meet the requirements of any business unit.

    - The Programmer Certification Program offers programs designed for certification of programmers in MVS, DB2, IMS, CICS, IDMS, COBOL, ORACLE, Software Engineering, and most of Compuware's products. These programs provide structured approaches to the development of programming skills and knowledge including substantial "hands-on" experiences. The certification process includes aggregate testing of each class or individualized testing of each student, depending on clients' preferences. Courses are developed on the basis of a management-by-objectives approach that leads to a coherent, robust, and effective learning process.

  - Courses are conducted on a client's site, at the Compuware Training Center, or by video presentations.

Industry Markets

Compuware markets its professional services and products across industries.

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Geographic Markets

Approximately 75% of Compuware's fiscal 1990 revenue was derived from the U.S., 19% from Europe, and the remaining 6% from other international sources.

Compuware has U.S. professional services offices in Baltimore (MD), Hartford (CT), Lansing and Farmington Hills (MI), Washington DC, and Wilmington (DE). Compuware has software products sales offices in Chicago (IL), Los Angeles and San Francisco (CA), and New York (NY).

Compuware has international software products sales and technical support offices in England, Canada, France, Holland, Italy, Spain, and West Germany.

Compuware also markets its systems software products internationally, either directly or through sales agents.

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COMPUWARE CORPORATION
32100 Telegraph Road
Birmingham, MI 48010
(313) 540-0900

Peter Karamanos, Chairman of the Board, Principal Owner
Lynn Drayton, President
Private Corporation
Total Employees: 296
Total Revenue, Fiscal Year End 4/30/82: $16,000,000
Computer Services Revenue: $15,500,000

THE COMPANY

- Compuware, founded in 1973, provides professional services, software products, turnkey minicomputer systems, and EDP training courses.
- Fiscal 1982 revenue was $16 million, a 19% increase over 1981 revenue of $13.5 million. A five-year revenue summary follows:

COMPUWARE CORPORATION
FIVE-YEAR REVENUE SUMMARY
($ thousands)

ITEM \ FISCAL YEAR	4/82	4/81	4/80	4/79	4/78
Revenue	$16,000	$13,500	$11,500	$10,000	$ 5,500
. Percent increase from previous year	19%	17%	15%	82%	57%

- Compuware is divided into five operating units:
  - Applications Systems Division performs contract programming, applications systems design, and conversions.
  - Systems Software Division maintains a separate support staff which performs systems consulting, installation, and maintenance. They offer the Abend-AID software product.
  - Minicomputer Systems Division is a charter distributor of Digital Equipment Corporation's minicomputers and provides turnkey systems, word processing hardware, and distributed data processing networks.

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- Professional Development Division offers data processing seminars and courses, and is Compuware's newest division.

- The Space Company, a wholly owned subsidiary, leases temporary office structures.

- Employees are segmented as follows:

Marketing/sales	21
Product development/customer support	11
Professional services	222
General and administrative	42
	296

- Major professional services competitors include Informatics, Computer Sciences Corporation, and various local companies. The primary software competitor is Capex Corporation.

KEY PRODUCTS AND SERVICES

- Total fiscal 1982 revenue was generated as follows:

	Percent of Total	Revenue ($ thousands)
Professional services	47%	$ 7,500
Systems software	36	5,750
Turnkey systems	14	2,250
Non-data processing services	3	500
	100%	$16,000

- Applications Systems Division offers custom software development, applications programming, hardware and software conversions, feasibility studies, systems requirement analysis, systems design, and data base and data communications design.

  - Development work is primarily for IBM hardware; however, Compuware does have systems experience with other mainframes such as Honeywell and Burroughs.

- Systems Software Division provides installation, maintenance, and modification of systems software.

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- Service is offered on a project contract basis, on an as-needed basis, or under a Maintenance Service Support plan. Under the plan, Compuware assumes responsibility for part or all of the client's systems software. For a fixed fee, Compuware will install, maintain, and provide software updates.

- Compuware's professional services business is growing due to the economic recession, and the company expects this trend to continue. Large companies that have done programming in-house, or relied on IBM field engineering, are finding it more economical to use vendors like Compuware.

- Abend-AID is an operating system enhancement product, which tells the user, in English, the exact cause of an abend. This software debugging tool simplifies the costly process of solving program abends by transferring the task of analyzing the computer memory dump from the programmer to the computer.

  - Abend-AID is Compuware's most successful product, and is used by more than 10,000 customers worldwide. Revenue in fiscal 1982 from the product was over $5 million.

- Compuware has developed interactive software products for DEC minicomputers. These can be sold on an unbundled basis, but are almost always sold as part of turnkey systems. Products are offered for legal, CPA, inventory control, and general business accounting applications. Custom modifications are usually included.

  - INDECS XI, a law office information management system, automates attorney time reporting and client billing, and provides management information reports. Five systems have been sold.

  - The CPA package capabilities include client write-up, loan amortization, after-the-fact payroll, and tax form preparation. Five packages have been sold.

  - The Warehouse Inventory Control Package is a sales analysis module which can integrate multiple locations. Ten have been sold.

  - More than 70 general business accounting packages are installed.

- Compuware's software products are sold in modules. A complete package sells for $5,000 to $7,000. An average module costs $1,500.

  - Minicomputers used in Compuware turnkey systems are DEC PDP-11/23 (the most popular), 11/33, 11/44, 11/24, and 11/70.

    . Hardware prices range from $30,000 to $150,000.

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. Turnkey systems may be purchased or leased through DEC Leasing.

- As of November 1981, approximately 120 turnkey systems had been installed by Compuware. Businesses with revenue in the $10 million range are the main customers.

- The Professional Development Division offers data processing seminars, from entry to advanced levels. Courses are taught publicly or at client sites and may be customized to suit client requirements.

  - Courses include:

    . IMS classes in programming, message format services, and data base design.
    . CICS application and design.
    . IBM/OS COBOL debugging.
    . PL/I.
    . New hire trainee programmer development.
    . VSAM.

  - The FOCUS program finds and trains qualified people for employment in the data processing field. It includes classroom and on-the-job training at a client's site.

INDUSTRY MARKETS

- Compuware revenue is derived from the following industry sectors:

Manufacturing	30.0%
Utilities	20.0
Banking and finance	10.0
Insurance	15.0
Retail distribution	7.5
Wholesale distribution	7.5
Services	10.0
	100.0%

- Major clients include GM, Ford, American Automobile Association, The Charge Card Association, and Detroit Edison.

GEOGRAPHIC MARKETS

- Geographic revenue is distributed as follows:

U.S. 97%
Michigan (60%)
South Atlantic (25%)
California (15%)

International 3%
Canada, Latin America, Europe

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- Compuware maintains branch offices in Linthicum (MD), San Diego, and Houston.

COMPUTER HARDWARE AND SOFTWARE

- The company maintains one DEC PDP-11/44 running under RSTS-11.

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COMPANY HIGHLIGHT

COMPUWARE CORPORATION
29433 Southfield Road
Southfield, MI 48076
(313) 559-9050

Peter Karamanos, Chairman of the Board, Principal Owner
Lynn Drayton, President
Private Corporation
Total Employees: 280
Total Revenue, Fiscal Year End 4/30/81: ~~$15,000,000~~ 13500
Computer Services Revenue: $14,500,000

PRINCIPAL BUSINESS

- Compuware, founded in 1973, provides professional services, software products, turnkey minicomputer systems, and EDP training courses.

FINANCIALS ($ thousands)

	4/81	4/80	4/79	4/78	4/77
Total Revenue	$15,000	$11,500	$10,000	$ 5,500	3,500
. Percent increase from previous year	30%	15%	82%	57%	30%

SOURCES OF REVENUE

Professional services	47%	$ 7,000,000
Systems software	35	5,250,000
Turnkey systems	15	2,250,000
Non-data processing services	3	500,000
	100%	$15,000,000

DIVISIONS/SUBSIDIARIES

- Applications Systems Division performs contract programming, applications systems design, and conversions.
- Systems Software Division maintains a separate support staff which performs systems consulting, installation, and maintenance. They offer the Abend-AID software product.
- Minicomputer Systems Division is a charter distributor of Digital Equipment Corporation's minicomputers and provides turnkey systems, word processing hardware, and distributed data processing networks.

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- Professional Development Division offers data processing seminars and courses, and is Compuware's newest division.

- The Space Company, a wholly owned subsidiary, leases temporary office structures.

EMPLOYEES

- As of December 1981, Compuware had the following employees:

Marketing and sales	23
Professional	181
Project managers	38
General and administrative	38
	280

KEY PRODUCTS AND SERVICES

- Applications Systems Division offers custom software development, applications programming, hardware and software conversions, feasability studies, system requirement analysis, systems design, data base and data communications design.

  - Development work is primarily for IBM hardware; however, Compuware does have systems experience with other mainframes such as Honeywell and Burroughs.

- Systems Software Division provides installation, maintenance, and modification of systems software.

  - Service is offered on a project contract basis, on an as needed basis, or under a Maintenance Service Support plan. Under the plan, Compuware assumes responsibility for part or all of the client's systems software. For a fixed fee, Compuware will install, maintain, and provide software updates.

  - Compuware's professional services business is growing due to the economic recession, and they expect this trend to continue. Large companies that have done programming in-house, or relied on IBM field engineering, are finding it more economical to use vendors like Compuware.

- Abend-AID is an operating system enhancement product, which tells the user, in English, the exact cause of an abend. This software debugging tool simplifies the costly process of solving program abends by transferring the task of analyzing the computer memory dump from the programmer to the computer.

  - Abend-Aid is Compuware's most successful product, and is used by more than 10,000 customers worldwide.

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- The product, which was developed and is marketed by Compuware, operates on IBM OS and DOS operating systems. The company is adapting the product for use with other IBM operating systems.

- Abend-AID sells for $10,000.

- Compuware has developed interactive software products for DEC minicomputers. These can be sold on an unbundled basis, but are almost always sold as part of turnkey systems. Products are offered for legal, CPA, inventory control and general business accounting applications. Custom modifications are usually included.

  - INDECS XI, a law office information management system, automates attorney time reporting and client billing, and provides management information reports. Five systems have been sold.

  - The CPA package capabilities include client write-up, loan amortization, after-the-fact payroll, and tax form preparation. Five packages have been sold.

  - The Warehouse Inventory Control Package is a sales analysis module which can integrate multiple locations. Ten have been sold.

  - More than 70 general business accounting packages are installed.

- Compuware's software products are sold in modules. A complete package sells for $5,000 to $7,000. An average module costs $1,500.

  - Minicomputers used in Compuware turnkey systems are DEC 1123 (the most popular), 1133, 1144, 1124, and 1170.

    . Hardware prices range from $30,000 to $150,000.
    . Turnkey systems may be purchased or leased through DEC Leasing.

  - As of November 1981, approximately 120 turnkey systems had been installed by Compuware. Businesses with revenues in the $10 million range are the main customers.

- The Professional Development Division offers data processing seminars, from entry to advanced levels. Courses are taught publicly or at client sites and may be customized to suit client requirements.

  - Courses include:

    . IMS classes in programming, message format services, and data base design.
    . CICS application and design.
    . IBM/OS COBOL debugging.
    . PL/1.
    . New hire trainee programmer development.
    . VSAM.

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- The FOCUS program finds and trains qualified people for employment in the data processing field. It includes classroom and on-the-job training at a client's site.

INDUSTRY MARKETS

Manufacturing	30%
Utilities	20
Banking and finance	10
Insurance	15
Distribution	15
Services	10
	100%

- Major clients include GM, Ford, American Automobile Association, The Charge Card Association, Detroit Edison, and the U.S. Supreme Court.

GEOGRAPHIC MARKETS

U.S.	97%
Michigan (60%)	
South Atlantic (25%)	
California (15%)	
International	3%
Canada, Latin America, Europe	

- Compuware maintains branch offices in Linthicum (MD), San Diego (CA), and Houston (TX).

COMPUTER HARDWARE AND SOFTWARE

1 DEC 1144, RSTS-11.

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COMSERV CORPORATION
3400 Comserv Drive
Eagan, MN 55122
(612) 681-7000

Tania Amochaev, President and CEO
Public Corporation, OTC
Total Employees: 282
Total Revenue, Fiscal Year End
12/31/85: $28,514,000

COMSERV CORPORATION
FIVE-YEAR FINANCIAL SUMMARY (a)
($ thousands, except per share data)

ITEM \ FISCAL YEAR	1985	1984	1983	1982	1981
Revenue	$28,514	$ 24,875	$ 19,435	$21,815	$17,236
. Percent increase (decrease) from previous year	15%	28%	(11%)	27%	61%
Income (loss) before taxes and extraordinary item	$ 750	$ (9,747)	$ (12,841)	$ 609	$ 3,252
. Percent change from previous year	108%	24%	*	(81%)	126%
Cumulative effect of accounting change (b)	-	$ (12,833)	-	-	-
Net income (loss)	$ 1,191(b)	$ (22,580) (c)	$ (10,485)	$ 523	$ 2,020
. Percent change from previous year	105%	(115%)	*	(74%)	124%
Earnings (loss) per share	$ 0.25	$ (6.96)	$ (3.21)	$ 0.16	$ 0.65
. Percent change from previous year	104%	(117%)	*	(75%)	56%

* Percent change exceeds 1,000%.

(a) Since September 15, 1983, the Securities and Exchange Commission has been conducting a formal investigation concerning Comserv's restatement of revenues and earnings for 1982 and for the first two quarters of 1983 and of Comserv's financial reporting and internal controls. As a result of this investigation, certain additional errors were discovered in the company's reporting of revenue for 1982 and 1981. The errors resulted from undisclosed agreements with

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customers and irregularities in contract signing dates. Comserv's financial statements have subsequently been restated to correct these errors.

(b) Includes a $221,000 gain from the redemption of 11% Convertible Subordinated Debentures and a $520,000 tax benefit from use of net operating loss carry-forwards.

(c) Effective January 1, 1984, Comserv has changed its policy of accounting for internally developed software and education costs from capitalization to direct expensing of these costs as incurred. The effect of this change was to decrease 1984 income, before cumulative effect of accounting change, by approximately $1.9 million. The cumulative effect of the change on prior years was a one-time non-cash expense of $12,833,000. Assuming retroactive application of the expensing of product development costs, net losses for 1984, 1983, and 1982 become $9,747,000, $14,328,000, and $5,020,000, respectively.

- Comserv management attributes favorable results in income before taxes to increased volumes and reduced expense levels from 1984.
  - Operating costs and expenses were approximately $24.1 million in 1985 compared to $30.1 million in 1984.
- Revenue for the three months ending March 31, 1986 was $4.6 million, a 2% increase over $4.5 million for the same period in 1985. Net losses were $1.8 million compared to losses of nearly $2 million for the same period a year ago. Comserv management states that the first quarter is traditionally the company's weakest.

SOURCE OF REVENUE

- A three-year summary of Comserv's revenue by service mode follows ($ millions):

FISCAL YEAR / ITEM	1985*		1984		1983	
	Revenue	Percent of Total	Revenue	Percent of Total	Revenue	Percent of Total
Software products and maintenance	$20.0	70%	$17.4	70%	$12.6	65%
Educational services	8.5	30	3.5	14	2.8	14
Professional services			3.0	12	2.1	11
Processing services	-	-	1.0	4	1.9	10
Total	$28.5	100%	$24.9	100%	$19.4	100%

*INPUT estimate

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- Comserv's 1985 revenue was derived primarily from the discrete and process manufacturing industries.
  - During 1985 Eastman Kodak Company accounted for 13% and American Telephone and Telegraph Company accounted for 12% of total revenue.
  - During 1985 software and related services sold to CDC approximated $2.4 million (8% of revenue).
- A three-year summary of geographic source of revenue follows ($ millions):

FISCAL YEAR / ITEM	1985		1984		1983	
	Revenue	Percent of Total	Revenue	Percent of Total	Revenue	Percent of Total
U.S.	$27.8	98%	$21.8	88%	$16.7	86%
Foreign (primarily Europe)	0.7	2	3.1	12	2.7	14
	$28.5	100%	$24.9	100%	$19.4	100%

NEW PRODUCTS AND SERVICES

- Optional AMAPS modules recently introduced include the following:
  - The Cost Management System, introduced in 1985, provides for exception reporting and complete on-line order cost reports for timely notifications of manufacturing material variances throughout the production cycle.
  - Schedule Managed Production extends AMAPS functionality to repetitive manufacturers.
  - Comserv Engineering System defines and records all project deliverables and custom requirements, and tracks all product design modifications.
- Comserv now markets the FOURTH SHIFT® Manufacturing Software Series of application software products designed for IBM PC/XT, AT, and compatible microcomputers.
  - The products, from FOURTH SHIFT Corporation (a subsidiary of Microtechnology Sources, Ltd.), are marketed by Comserv primarily to large manufacturing companies (Fortune 1500) with several smaller locations and micro-based processing facilities.

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- FOURTH SHIFT modules include the following:

  - System Control, priced at $250.
  - General Ledger, priced at $800.
  - Accounts Payable, priced at $800.
  - Accounts Receivable, priced at $800.
  - Inventory Control, priced at $1,650.
  - Product Costing, priced at $1,650.
  - Bill of Material, priced at $2,200.
  - Purchasing, priced at $3,300.
  - Material Requirements Planning (includes Master Production Scheduling), priced at $5,500.
  - Multi-User/Local Area Network, priced at $2,750.
  - Inventory Accuracy Report, priced at $350.
  - Vendor Performance Report, priced at $350.
  - Schedule Performance Reports, priced at $350.
  - Order Entry (available the third quarter of 1986), priced at $3,300.
  - Custom Products Manufacturing (available the fourth quarter of 1986), priced at $3,300.

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COMPANY PROFILE

COMSERV CORPORATION
3400 Comserv Drive
Eagan, MN 55122
(612) 681-7000

Tania Amochaev, President and CEO
Public Corporation, OTC
Total Employees: 278
Total Revenue, Fiscal Year End
12/31/84: $24,875,000

THE COMPANY

- Comserv Corporation, founded in 1968, provides applications software products, associated support and educational services, and professional services primarily to the manufacturing industry. The company has over 500 product installations worldwide.

- During 1984 and early 1985 Comserv entered into a series of relationships with Control Data Corporation, subsequent to a letter of intent signed by both parties on July 27, 1984, which include the following:

  - On July 27, 1984, Comserv received a $2 million five-year loan from Control Data, secured by Comserv's accounts receivable and a first mortgage on land. Approximately $1.1 million of the loan proceeds were used to repay past-due interest on Comserv's 11% convertible subordinated debentures. The remaining $900,000 was added to working capital and for general corporate purposes.

  - In September 1984 Control Data advanced Comserv an additional $1.5 million under a promissory note, payable on demand. The loan proceeds were added to Comserv's working capital and invested in short-term interest bearing securities.

  - On February 7, 1985, a joint marketing agreement was executed under which Control Data obtained the non-exclusive right to market Comserv's AMAPS software and certain related educational products outside the U.S. Subsequent to this agreement Control Data Ltd. has purchased the net assets of Comserv's operations in the U.K. and Ireland.

  - On February 28, 1985, in exchange for cancellation of the $1.5 million promissory note described above, Comserv issued Control Data 815,281 shares of Comserv preferred stock (valued at $1 million or $1.23 per share) and warrants to purchase up to 1,358,802 additional shares of Comserv's preferred stock at $0.74 a share. As a result of the transaction, Control Data owns preferred stock convertible into 20% of Comserv's common stock and an option to purchase additional stock through February 1988 convertible into an additional 20% of the outstanding stock.

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- Comserv's 1984 revenue reached $24.9 million, a 28% increase over 1983 revenue of $19.4 million. Net losses reached $22.6 million in 1984 compared to net losses of $10.5 million in 1983. A five-year financial summary follows:

COMSERV CORPORATION
FIVE-YEAR FINANCIAL SUMMARY (a)
($ thousands, except per share data)

ITEM \ FISCAL YEAR	1984	1983	1982	1981	1980
Revenue	$ 24,875	$ 19,435	$ 21,815	$ 17,236	$ 10,704
. Percent increase (decrease) from previous year	28%	(11%)	27%	61%	65%
Income (loss) before taxes and extraordinary item	$ (9,747)	$ (12,841)	$ 609	$ 3,252	$ 1,441
. Percent increase (decrease) from previous year	(24%)	*	(81%)	126%	57%
Cumulative effect of accounting change (b)	$ (12,833)	-	-	-	-
Net income (loss) (b)	$ (22,580)	$ (10,485)	$ 523	$ 2,020	$ 903
. Percent increase (decrease) from previous year	115%	*	(74%)	124%	75%
Earnings (loss) per share	$ (6.96)	$ (3.21)	$ 0.16	$ 0.65	$ 0.42
. Percent increase (decrease) from previous year	117%	*	(75%)	56%	40%

* Percent change exceeds 1,000%.

(a) Since September 15, 1983, the Securities and Exchange Commission has been conducting a formal investigation concerning Comserv's restatement of revenues and earnings for 1982 and for the first two quarters of 1983 and of Comserv's financial reporting and internal controls. As a result of this investigation, certain additional errors were discovered in the company's reporting of revenue for 1982 and 1981. The errors resulted from undisclosed agreements with customers and irregularities in contract signing dates. Comserv's financial statements have subsequently been restated to correct these errors.

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(b) Effective January 1, 1984, Comserv has changed its policy of accounting for internally developed software and education costs from capitalization to direct expensing of these costs as incurred. The effect of this change was to decrease 1984 income, before cumulative effect of accounting change, by approximately $1.9 million. The cumulative effect of the change on prior years was a one-time non-cash expense of $12,833,000. Assuming retroactive application of the expensing of product development costs, net losses for 1984, 1983, and 1982 become $9,747,000, $14,328,000, and $5,020,000, respectively.

- Comserv management attributes net losses primarily to the following factors:
  - The effect of the change in accounting for internally developed software and education costs decreased 1984 income before cumulative effect by $1.9 million and the cumulative effect for prior years resulted in a one-time expense in 1984 of $12.8 million. The amortized expense for 1983 was $5.8 million.
  - Bad debt expenses increased 215% in 1984 and were related to accounts receivable retained when Comserv's processing services operations were sold.
  - Interest expenses reached $4.4 million in 1984, compared to $2.5 million in 1983 and $1 million in 1982, reflecting higher outstanding loan balances and the capitalization of a significant portion of the interest expense during the first half of 1983 for a new corporate facility.
  - Cost cutting measures implemented by Comserv during 1984 resulted in operating costs remaining level with 1983.
- On July 27, 1984, Comserv sold its computer service bureau assets to two former employees for $194,000 in cash and $863,000 in promissory notes.
  - Revenue from computer service bureau processing was $963,000, $1,858,000, and $2,187,000 for 1984, 1983, and 1982, respectively.
  - The service bureau now operates as Professional Processing, Inc.
- Revenue for the six months ending June 30, 1985 was $13.3 million, a 13% increase over $11.8 million for the same period in 1984. Net losses were $200,000 compared to losses of $18.7 million a year ago, which included the $12.8 million cumulative effect of the accounting change to expense internally developed software and education costs as incurred.
- As of December 31, 1984, Comserv had 278 employees. As of July 31, 1985, the company had 271 employees.
- Major competitors include IBM, ASK Computer Systems, Martin Marietta Data Systems, Management Science America, Cincom, Cullinet, NCA, Western Data, Xerox, McCormack & Dodge, and Software International.

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KEY PRODUCTS AND SERVICES

- A three-year summary of Comserv's revenue by service mode follows ($ millions):

ITEM \ FISCAL YEAR	1984		1983		1982	
	Revenue	Percent of Total	Revenue	Percent of Total	Revenue	Percent of Total
Software products	$17.4	70%	$12.6	65%	$13.4	62%
Educational services	3.5	14	2.8	14	3.3	15
Professional services	3.0	12	2.1	11	2.9	13
Processing services	1.0	4	1.9	10	2.2	10
Total	$24.9	100%	$19.4	100%	$21.8	100%

- Comserv's principal software product is the Advanced Manufacturing, Accounting, and Production System (AMAPS).
  - AMAPS products are designed to provide information management to manufacturers for the planning, scheduling, monitoring, and controlling of their operations.
  - AMAPS has an open system architecture (the External System Interface) that allows customers to load data from their own system into the AMAPS data base. AMAPS supports all major data base management systems.
  - AMAPS modules include the following:
    - The Bill of Material System maintains information describing the complete structure of the clients' products.
    - The Material Control System maintains accurate inventory balances as well as planned supply and demand information. It also monitors the execution of the materials plan and reports exceptions to the plan for management action.
    - The Material Requirements Planning System uses bill of material and material control data to project when shortages occur and to plan replenishment orders accordingly.

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- The Purchase Control System provides information for cost and quality control of purchased items and services. It links supply requisitions to contracts and purchase orders, and maintains a vendor information and performance file.

- The Master Production Scheduling System develops a production schedule from management's strategic production plan, taking into consideration the availability of materials and labor and machine capacity.

- The Process and Routing System maintains operational routing and work center data which is used to schedule manufacturing orders and develop standard costs.

- The Capacity Requirements Planning System reports the short- and long-range load problems of each work center and is designed to maximize utilization of the work center.

- The Shop Floor Control System schedules and controls the manufacturing process and provides performance reporting.

- The Cost Development System maintains detailed standard cost information for budget reporting purposes and cost simulations.

- The Lot Traceability System allows manufacturers to track lots containing controlled substances and parts, and to identify customers to whom these products have been shipped.

- The Management Reporting System allows users to generate customized reports from AMAPS data either on-line or with an IBM PC-compatible microcomputer.

- Comserv currently markets three versions of AMAPS, each targeted to specific markets within the manufacturing industry.

  - AMAPS/Q is marketed primarily to manufacturing companies with annual sales in excess of $60 million.

    - AMAPS/Q runs on IBM and IBM-compatible mainframes on OS (VSI and MVS), and DOS (VSE and non-VSE) operating systems. AMAPS/Q runs under CICS and IMS/DC. AMAPS/Q also supports DLI, IMS/DB, IDMS, DATACOM or ADABAS, or TOTAL as a data base manager. AMAPS/Q modules range in price from $30,000 to $100,000. Nine-module systems range in price from $269,000 to $289,000.

    - There are currently over 350 installations of AMAPS/Q. Clients include TRW, John Crane-Houdaille (Houdaille Industries), Avon Products, Stolle Corporation, Kemp

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Furniture Industries, Raychem GmbH, Tennant Company, Motorola, IFF, Square D, Monsanto, Johnson & Johnson, and R. J. Reynolds.

- AMAPS/G, introduced in 1984, is marketed primarily to companies manufacturing pursuant to government contracts.

  - The product was designed and developed based on the AMAPS system but has special features and functions necessary to support the specific requirements unique to government contracts. Specialized modules include: Configuration Management; MRP by Contract; Stores Control by Contract; and Multi-Level Pegging.

  - AMAPS/G is composed of an integrated Contract Engineering module along with nine other AMAPS modules, excluding Lot Traceability (scheduled for delivery in 1986).

  - The software runs on IBM and compatible mainframes under OS, OS/IDMS/CICS - OS/IMS/DC. The price for a five-module AMAPS/G system is $240,000. Optional modules range in price from $25,000 to $100,000.

  - There are currently seven installations of AMAPS/G. Clients include General Dynamics, Hughes Helicopter, Western Gear, Singer Kearfott, Avco Systems, AT&T, and Bendix.

- AMAPS/3000 is marketed primarily to large manufacturing companies with decentralized data processing facilities and to smaller manufacturing companies with annual sales over $20 million.

  - AMAPS/3000 runs on HP 3000 minicomputers. The system is composed of the 10 AMAPS modules, except Lot Traceability (to be released in 1985). In addition, modules for order management, accounts payable, accounts receivable, and general ledger are also available.

  - AMAPS/3000 systems range in price from $60,000 to $129,000. Individual AMAPS/3000 modules range in price from $5,000 to $17,000. There are currently over 150 AMAPS/3000 installations.

  - Clients include 3M Company, Samsung Electronics America, Ludwig Engel Canada Ltd., Bendix Safety Restraints (Allied Corporation), Borg Warner Air Conditioning, General Motors, RCA, and Westinghouse.

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- Educational products and services provided to Comserv software clients include lectures, video-based courses, and workshops conducted at Comserv's Headquarters Education Center in Eagan (MN).

  - The products and services are designed to reduce implementation efforts, improve user understanding of system functions, control costs, and provide a structure for continuing education.

  - Comserv experience suggests that its software products are most successful in installations where at least 70% of the manufacturing management and control personnel have received formal education concerning AMAPS software.

- Professional services provided to Comserv software clients include assisting in the integration of AMAPS into customers' existing operations and customization services to meet specific client needs. Consulting and systems analysis and programming are also provided.

INDUSTRY MARKETS

- Comserv's 1984 revenue was primarily derived from the discrete and process manufacturing industries.

- Comserv's primary market for its software products is manufacturers with IBM and compatible mainframes or HP minicomputers.

GEOGRAPHIC MARKETS

- A three-year summary of source of revenue follows ($ millions):

FISCAL YEAR / ITEM	1984		1983		1982	
	Revenue	Percent of Total	Revenue	Percent of Total	Revenue	Percent of Total
U.S.	$21.8	88%	$16.7	86%	$18.6	85%
Foreign (primarily Europe)	3.1	12	2.7	14	3.2	15
	$24.9	100%	$19.4	100%	$21.8	100%

- U.S. field offices are located in Boston, Chicago, Cleveland, Dallas, Los Angeles and San Jose (CA), Milwaukee, Minneapolis, Philadelphia, Syracuse and Winston-Salem (NC).

- Effective January 1, 1985, Comserv's software products and educational services are marketed by Control Data in Europe, and Comserv will receive royalty payments based on a percent of the sales price.

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COMPUTER HARDWARE AND SOFTWARE

- Comserv has the following computers installed:
  - 1 NAS AS/9000, operating under VM/MVS/VSE.
  - 1 HP 3000 Series 44, MPE IV.
  - 1 HP 3000 Series 37.
  - 1 Wang VS 80.
  - 1 Wang VS 100.

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FINANCIAL UPDATE TO HIGHLIGHT DATED OCTOBER 1982

COMSERV CORPORATION
3400 Comserv Drive
Eagan, MN 55122
(612) 681-7000

Richard P. Daly, President and CEO
Public Corporation, OTC
Total Employees: 460
Total Revenue, Fiscal Year End 12/31/82: $25,075,499

COMSERV CORPORATION
FIVE-YEAR FINANCIAL SUMMARY
($ thousands, except per share data)

ITEM \ FISCAL YEAR	1982	1981	1980	1979	1978
Revenue	$ 25,075	$ 17,667	$ 10,704	$ 6,493	$ 4,257
. Percent increase from previous year	42%	65%	65%	52%	38%
Income before taxes	$ 3,646	$ 3,628	$ 1,441	$ 916	$ 538
. Percent increase from previous year	1%	152%	57%	70%	78%
Net income	$ 2,552	$ 2,213	$ 903	$ 516	$ 315
. Percent increase from previous year	15%	145%	75%	64%	8%
Earnings per share	$ 0.76	$ 0.71	$ 0.42	$ 0.30	$ 0.22
. Percent increase (decrease) from previous year	7%	69%	40%	36%	(4%)

SOURCE OF REVENUE

- Comserv's revenue by service mode for 1982 and 1981 was as follows:

	1982 Revenue ($ thousands)	1982 Percent of Total	1981 Revenue ($ thousands)	1981 Percent of Total
Software products	$16,664	66%	$11,928	68%
Educational services	3,319	13	1,134	6
Professional services	2,905	12	2,498	14
Processing services	2,187	9	2,107	12
	$25,075	100%	$17,667	100%

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COMPANY HIGHLIGHT

COMSERV CORPORATION
1385 Mendota Heights Road
Mendota Heights, MN 55120
(612) 452-7770

Richard P. Daly, President and CEO
Public Corporation, OTC
Total Employees: 340
Total Revenue, Fiscal Year End
12/31/81: $17,667,477

THE COMPANY

- Comserv Corporation, founded in 1968, provides software products and related educational services, and processing, consulting, and technical services primarily to the manufacturing industry.

- 1981 revenue of $17.7 million represented an increase of 65% over 1980 revenue of $10.7 million. Net income rose 145% from $903,000 in 1980 to $2.2 million in 1981. A five-year financial summary follows:

COMSERV CORPORATION
FIVE-YEAR FINANCIAL SUMMARY
($ thousands, except per share data)

ITEM \ FISCAL YEAR	1981	1980	1979	1978	1977
Revenue	$17,667	$10,704	$6,493	$4,257	$3,084
. Percent increase from previous year	65%	65%	52%	38%	38%
Income before taxes and extraordinary item	$ 3,628	$ 1,441	$ 916	$ 538	$ 302
. Percent increase from previous year	152%	57%	70%	78%	47%
Net income	$ 2,213	$ 903	$ 516	$ 315	$ 291
. Percent increase from previous year	145%	75%	64%	8%	48%
Earnings per share(a)	$ 0.71	$ 0.42	$ 0.30	$ 0.22	$ 0.23
. Percent increase (decrease) from previous year	69%	40%	36%	(4%)	35%

(a) Restated to reflect three-for-two stock split, March 1981.

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- On April 30, 1981 the company sold 660,000 shares of common stock at $11.67 per share. These funds were used, in part, for expansion of the company's product lines through development of additional software products. This sale of stock, along with the 660,000 shares sold in July 1980, generated approximately $10 million in proceeds.

- Management attributes the significant increase in net income and income before taxes in 1981 to two factors:

  - An increase in the percentage of total revenue derived from software products and related educational services, which generate higher profit margins than processing and professional services.

  - The expansion of sales and support personnel in the field.

- Comserv spent approximately 22% of its revenue in 1981 on the development of software products and educational courses. This compares with approximately 14% in previous years. Product development expenditures are expected to be about 25% of revenue in 1982.

- In July 1982 Comserv completed the sale of $20 million of subordinated convertible debentures. Proceeds from this sale are being used to fund a portion of the construction of a new corporate headquarters, the design and construction of software and educational products, the purchase of a new computer, and for other general corporate purposes.

- Revenue for the nine months ending September 30, 1982 reached almost $17 million, compared to $11.9 million for the same period in 1981.

  - Nearly all of this increase is a result of increased sales of software and educational products.

  - Comserv historically experiences its strongest revenue performance in the second and fourth quarters.

- In the second half of 1981 Comserv expanded its processing services client base with two acquisitions:

  - The client base and software rights of Programmed Management Corporation of Bloomington (MN), an independent computer services bureau serving the property management market. Programmed Management was a Comserv data center client at the time of the acquisition.

  - Apparelmaster's Mail Accounting Systems customer base from Automated Data Services, Inc. of Cincinnati (OH). Comserv's data center now handles all mail accounting, which is largely billing and receivables. Apparelmaster is a consulting franchise organization in the uniform rental business, serving approximately 300 dry cleaners and laundries in the U.S. and Canada.

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- On December 31, 1981 Comserv had 340 employees. As of September 1982 Comserv employed 449 persons, segmented as follows:

Educational services	58
Product production	95
Sales and marketing	85
Professional services	68
Processing services	69
Finance and administration	74
	449

- Major competitors include IBM, Arthur Andersen, Martin Marietta Data Systems, Management Science America (Manufacturing Systems Division), and Cincom Systems.

KEY PRODUCTS AND SERVICES

- Comserv's revenue by service mode for 1981 and 1980 was as follows:

	1981 Revenue ($ thousands)	1981 Percent of Total	1980 Revenue ($ thousands)	1980 Percent of Total
Software products	$ 11,928	68%	$ 6,839	64%
Professional services	2,498	14	1,619	15
Processing services	2,107	12	1,829	17
Educational services	1,134	6	417	4
	$ 17,667	100%	$ 10,704	100%

- Comserv's principal software product is the Advanced Manufacturing, Accounting, and Production System (AMAPS).

  - AMAPS was introduced in 1976. The system's modular design integrates all manufacturing functions into a single system.

  - The system currently consists of 11 modules:

    . Bill of Materials.
    . Material Control.
    . Material Requirements Planning.
    . Purchasing Control.
    . Process and Routing.
    . Shop Floor Control.
    . Capacity Requirements Planning.
    . Standard Costing.
    . Master Production Scheduling.
    . Lot Traceability.
    . Cost Management.

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- Multiplant, an AMAPS option introduced in late 1981, allows multiple manufacturing plants to be incorporated into a single AMAPS data base.

- AMAPS runs on IBM mainframes under OS and DOS and on Hewlett-Packard, Prime, and Wang minicomputers.

  . Comserv typically markets mainframe versions of AMAPS to large manufacturing companies with annual sales in excess of $75 million.

  . The announcement in late 1981 of the availability of AMAPS for Prime and Wang minicomputers enabled the company to broaden its market base to include medium-size manufacturing companies with sales in the $25 to $100 million range.

- The AMAPS package, including all 11 modules, is priced at approximately $515,000, depending on the customer's configuration. The modules are available separately and range in price from $15,000 to $50,000.

- There are currently over 275 AMAPS installations. Management anticipates there will be a total of 300 installations by the end of 1982. Clients include Amway, DuPont, Exxon, Firestone, Gillette, Harris, Johnson & Johnson, Memorex, RCA, Singer, and Wang.

- In the third quarter of 1982, the company reached agreements with Cullinane Database Systems, Applied Data Research, and Software AG permitting Comserv to market the data base management systems offered by these vendors in conjunction with AMAPS.

  - Comserv will be offering these data base managers at reduced purchase prices for use solely with AMAPS.

  - The data base vendors will install their own products. Comserv will supply and support the interfaces between the data base software and AMAPS.

- Comserv recently announced AMAPS/3000, a software product designed for the HP 3000 that integrates newly introduced order entry and financial applications with AMAPS manufacturing software. AMAPS/3000 is designed to meet the requirements of mid-size manufacturers (annual revenue in the $25 to $75 million range) in the United States and abroad.

- Processing services contributed about 12% to total revenue in 1981. Management estimates this percentage will decrease to 10% in 1982.

  - Comserv currently provides processing services to about 800 clients, 75% as batch processing, and 25% as remote batch.

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- Applications available include:
  - . General financial: general ledger, accounts payable, accounts receivable, and payroll.
  - . Vertical market: property management and uniform rental.
- There are also about 15 manufacturing companies that use Comserv processing services to access MAPS, the predecessor to AMAPS.

- Professional services offered in support of AMAPS include implementation planning and systems consulting, analysis, and installation.

- Comserv provides AMAPS clients with product education and training through workshops, seminars, video courses, and licensed courses.

INDUSTRY MARKETS

- Software products, professional services, and educational services are marketed exclusively to medium and large manufacturers. Processing services are used by small manufacturers and other industries, including property management.

GEOGRAPHIC MARKETS

- Comserv derived 100% of its 1981 revenue from the U.S.
  - The company estimates 95% of 1982 revenue will be domestic, with the remaining 5% from international operations.

- Processing services are available in the Midwest only.

- Domestic branch offices are located in Boston, Chicago, Cleveland, Dallas, Houston, Los Angeles, Minneapolis, Philadelphia, Pittsburgh, St. Louis, San Francisco, Syracuse, and Winston-Salem.

- In late 1981 Comserv expanded its marketing efforts outside the U.S. by establishing offices in Dublin, London, Mexico City, and Toronto.

COMPUTER HARDWARE AND SOFTWARE

- Hardware installed at Comserv includes:
  - 1 NAS 9000, VM, OS, DOS.
  - 1 Prime 750.
  - 1 HP 3000 Series 44, MPE IV.
  - 1 Wang VS 2200.
  - 1 DEC VAX.
  - 1 NAS 3000.

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COMPANY HIGHLIGHT

COMSERV CORPORATION
1385 Mendota Heights Road
Mendota Heights, MN 55120
(612) 452-7770

Richard P. Daly, President
Public Corporation, OTC
Total Employees: 280
Total Revenue, Fiscal Year End 12/31/80: $10,703,503

PRINCIPAL BUSINESS

- COMSERV, founded in 1968, provides proprietary software products, processing services, and professional services primarily to the manufacturing industry.

FINANCIALS ($ thousands, except per share data)

ITEM \ FISCAL YEAR	1980	1979	1978	1977	1976
Total revenue	$10,704	$ 6,493	$ 4,257	$ 3,084	$ 2,241
. Percent increase from previous year	65%	52%	38%	38%	21%
Income before taxes and extraordinary item	1,441	916	538	320	206
. Percent increase from previous year	57%	70%	68%	55%	73%
Net income	903	516	315	291*	197*
. Percent increase from previous year	75%	64%	8%	48%	66%
Earnings per share	$ 0.67	$ 0.53	$ 0.35	$ 0.34	$ 0.25
. Percent increase from previous year	26%	51%	3%	36%	67%

*Includes extraordinary tax credit from operating loss carry-forwards.

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SOURCES OF REVENUE ($ thousands)

	1980		1979		1978	
	Revenue	Percent of total	Revenue	Percent of total	Revenue	Percent of total
Software products	$ 6,839	64%	$ 3,325	51%	$ 1,896	45%
Processing services	1,829	17	1,922	30	1,705	40
Professional services	1,619	15	1,112	17	656	15
Educational services	417	4	134	2	0	0
	$10,704	100%	$ 6,493	100%	$ 4,257	100%

EMPLOYEES

- As of March 1981, COMSERV had the following full-time employees:

Marketing and sales	64
System development	75
Computer operations	70
General and administrative	71
	280

PRODUCTS AND SERVICES

- All COMSERV revenue is derived from the use of the proprietary Advanced Manufacturing, Accounting, Production System (AMAPS). AMAPS integrates all manufacturing functions into a single system. There are nine modules:

  - Material Control.
    - Bill of Material System.
    - Material Control System.
    - Material Requirements Planning System.
    - Purchasing Control System.
  - Master Scheduling.
    - Master Production Scheduling System.
  - Production Control.
    - Process and Rating System.
    - Capacity Requirements Planning System.
    - Shop Floor Control System.
  - Accounting.
    - Standard Costing System.

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- AMAPS is marketed as a software product and is available in either batch or on-line versions to manufacturing firms with over $50 million in revenue. It is available for use on large mainframes or minicomputers.
  - The batch AMAPS version for IBM 360, 370, 303X, 43XX, and compatible equipment was introduced in 1975. An on-line release became available in 1980.
    - The 100 clients using AMAPS have approximately 130 mainframe systems installed.
    - Modules range in price from $25,000 to $35,000 each. A full system costs approximately $300,000.
  - AMAPS also operates on Hewlett-Packard HP-300 minicomputers. Approximately 20 systems have been installed since 1978. Versions operating on Prime 750 and Wang VS minicomputers became available in 1981.
- COMSERV also provides AMAPS as a processing service for smaller manufacturers. There are currently over 1,000 systems in facilities of 500 clients.
  - COMSERV also markets its own terminal, the COMSERV 1000, in conjunction with its processing services. The terminal, a Commodore 8032, leases for $150 per month.
  - Certain accounting and financial applications are also available on the network service.
- Professional services offered in support of AMAPS include implementation planning, systems consulting, systems analysis, and contract programming.
- Educational services offered through seminars, workshops, course license agreements, and video programmed instruction are designed to assist clients install and use COMSERV's software system. Packaged products represent 70% and services 30% of total educational services revenue.
- COMSERV no longer markets its DOES (Distribution Order Entry System) or CAS-11 (Computerized Accounting System) products. A total of 30 CAS III and 12 DOES systems were installed over the life of the products.

INDUSTRY MARKETS

- Software products and professional and educational services are marketed exclusively to large manufacturers. Processing services are used by small manufacturers and other industries.

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GEOGRAPHIC MARKETS

United States	95%
Canada	5%

- Software is marketed throughout the United States and Canada.
- Processing services are available in the Midwest only.
- COMSERV maintains offices in Boston, Chicago, Cleveland, Dallas, Houston, Los Angeles, Mendota Heights, Philadelphia, Pittsburgh, and San Francisco.
- New offices are planned in 1981 for Mexico City, Syracuse, and Dublin. New offices for 1982 are expected to be in England and West Germany.

COMPUTER HARDWARE

One IBM 4341.
One NAS AS 7000.
One Prime 750.
One HP-300.
One Wang VS 2200.

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COMSERV CORPORATION
3050 Metro Drive
Minneapolis, MN 55420
(612) 854-2020

Richard P. Daly, President
Public Corporation, OTC
Total Employees: 150
Total Revenues, Fiscal Year End 12/31/78: $4,257,407

THE COMPANY

- COMSERV was organized in 1968 in Minnesota to provide computer processing services, proprietary manufacturing and financial software products and related professional services. While COMSERV continues to operate a computer services center, it specializes in business applications software for the manufacturing and distribution industries, and provides professional services in support of its software.

- Revenues rose to $4,257,407 in 1978, from $3,083,892 in 1977, a gain of 38%. Net income increased from $291,000 in 1977 to $315,000 in 1978, an 8% increase. A five year financial summary follows:

COMSERV
FIVE YEAR FINANCIAL SUMMARY
($ Thousands, Except Per Share Data)

ITEM / FISCAL YEAR	1978	1977	1976	1975	1974
Revenues	$4,257	$3,084	$2,241	$1,846	$1,649
. Percent increase from previous year	38%	38%	21%	12%	17%
Income before taxes and extraordinary items	$ 538	$ 302	$ 206	$ 119	$ 126
. Percent increase from previous year	78%	47%	73%	-6%	20%
Net Income	$ 315	$ 291(A)	$ 197(A)	$ 119(A)	$ 100(A)
. Percent increase from previous year	8%	48%	66%	19%	94%
Per Share Earnings	$ .35	$ .34	$ .25	$ .15	$ .13
. Percent increase from previous year	3%	36%	67%	15%	160%

(A) Includes extrordinary item of tax benefit applicable to net operating loss carry forward.

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- COMSERV management claims that the increase in revenues resulted from increased sales of the company's proprietary systems software products. 1978 software product revenues were up 88% while computer processing revenues were up 14% and revenues from related service's were up 8%.

  - Proprietary software products have replaced processing services as COMSERV's primary source of revenue from 1976 to 1978. COMSERV management intends to maintain its processing services, but has planned from the company's beginning to place primary emphasis on the development of software products. Please refer to the chart below:

COMSERV
REVENUES BY SERVICE TYPE
1976-1978 ($ Thousands)

ITEM \ FISCAL YEAR	1978	1977	1976
Proprietary products	$1,972	$1,050	$ 313
. Percent increase from previous year	88%	235%	132%
. Percent of total revenue	46%	34%	14%
Computer processing	$1,659	$1,452	$1,385
. Percent increase from previous year	14%	5%	21%
. Percent of total revenue	39%	47%	62%
Related Services	$ 626	$ 582	$ 543
. Percent increase from previous year	8%	7%	-4%
. Percent of total revenue	15%	19%	24%

- There are three organizational divisions at COMSERV:

  - Product Sales markets the company's proprietary software.
  - Processing Services operates the data center and related processing services.
  - Educational Services develops educational courses in the area of product management, with manufacturers as its prime focus.

- The 150 COMSERV employees are divided as follows:

- Marketing sales	20
- Software services/customer support	60
- Computer operations	50
- General and administrative	20
TOTAL	150

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KEY PRODUCTS AND SERVICES

- COMSERV's products and services are marketed primarily to the manufacturing and distribution industries.

- Software products account for 46% of revenues, processing services, both remote computing and batch services, account for 39%, and the remaining 15% stems from professional services.

- COMSERV proprietary business applications software consists of three integrated systems: AMAPS, CAS-III, and DOES.

  - AMAPS (Advanced Manufacturing, Accounting and Production System). – AMAPS/Q (for IBM mainframes)
    - Introduced in 1975, this system can operate in either batch or interactive modes. – AMAPS/3000
    - AMAPS has been adapted to run on Hewlett-Packard's 3000 series or IBM Systems 360/370, as well as various minicomputers.
    - Written in COBOL, the closed-loop, net-change system contains nine modules: Bill of material, material control, material requirements planning, process and routing, master production scheduling, purchasing control, capacity requirements planning, shop floor control, standard costing.
    - The system is typically installed in logical groups of two or three modules at approximately $75,000 per group. The price per module ranges from $25,000 to $30,000.
    - There are 55 customer installations of AMAPS.
  - DOES (Distribution Order Entry System).
    - Priced between $30,000 and $35,000 and written for IBM System/360 or 370 computers or HP 3000 or equivalent, DOES was designed to meet the needs of medium sized manufacturing firms which require batch or distributed processing environments.
    - DOES is written in ANS COBOL and operates in batch or remote-batch modes. It integrates order entry, billing, invoicing, sales analysis and commission functions, as well as being directly interfaced to COMSERV's other software products.
    - There are currently six DOES installations.
  - CAS-III (Computerized Accounting System-Third Generation).
    - CAS-III incorporates the following applications for operation in a batch mode: financial reporting (general ledger), payroll, accounts receivable, and accounts payable.
    - Costing $28,000 to $35,000 there are over 1,000 installations of CAS-III in a corporate or data center environment.

- COMSERV has equipped its data center with standard versions of its own proprietary business applications software. Its services are available on either a remote computing or batch service basis.

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  - The data center, located in Minneapolis, MN, is accessed via leased lines and has a client base of approximately, 1,500 users.

- Professional services are offered in support of COMSERV's software. System specialists provide the initial and on-going contact with clients and perform the study and analysis necessary to develop a specific plan and detailed system design criteria to adapt COMSERV's industry software to a specific client's needs.

INDUSTRY MARKETS While its processing services are used by diverse industry sectors, 90% of software revenues stem from manufacturers and 10% from distributors.

GEOGRAPHIC MARKETS

- One hundred percent of COMSERV's revenues presently stem from the U.S. Management anticipates marketing its products internationally in 1980.

- In addition to its data center serving primarily the Midwest, COMSERV has marketing offices in Los Angeles, San Francisco, Pittsburgh, Atlanta, Dallas, Boston, and Chicago.

COMPUTER HARDWARE AND SOFTWARE

- COMSERV's data center is located in Minneapolis and is accessed via leased lines. It includes the following computer mainframes:

  - One Itel AS3 operating under DOS and OS.
  - One IBM System/360 Model 65 operating under DOS.

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INPUT

Vendor Profile

A Publication from INPUT's Vendor Analysis Program

June 1997

CONNECT, Inc.

515 Ellis Street
Mountain View, CA 94043
Phone: (415) 254-4000
Fax: (415) 254-4800
Internet: http://www.connectinc.com

Chairman, President & CEO:	Gordon J. Bridge
Status:	Public
Employees:	149 (12/96)
Revenue:	$10,180,000
Fiscal Year End:	12/31/96

Company Description

CONNECT, Inc., founded in 1987, is a developer of Internet-based interactive commerce, Internet-based order management, and purchasing software applications. CONNECT's applications are designed to automate order capture, and streamline distribution processes.

In June 1997, CONNECT announced the availability of OneServer™ 2.0, the company's latest version of its on-line application platform for rapid installation of high performance, scaleable Internet commerce solutions.

In June 1997, East West, a distributor of royalty-free sound samples, went "live" with its Sounds On-Line interactive commerce site built on CONNECT's OneServer application platform.

In June 1997, Southern Electronics Distributors International, a distributor of computer and communications equipment, selected CONNECT's OrderStream™ application to power its "SED On-Line Order Express" Web-based catalog.

In April 1997, CONNECT, ANS Communications, and Hewlett-Packard announced an alliance to provide hosting services for high-end Internet-based interactive commerce applications.

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In April 1997, Gordon J. Bridge succeeded Tom Kehler as Chairman, President, and CEO. Previously, Mr. Bridge had been responsible for the company's business development.

In August 1996, CONNECT, completed its initial public offering of 2.4 million shares at $6.00 per share.

Organization and Structure

CONNECT is headquartered in Mountain View (CA) and has offices throughout the U.S.

The company maintains sales offices in Mountain View and Woodland Hills (CA), Stamford (CT), Atlanta (GA), Oakbrook Terrace (IL), and Vienna (VA).

Key executives are listed in Exhibit 1.

Exhibit 1

CONNECT, Inc.

Key Executives

Name	Title
Gordon J. Bridge	Chairman, President & CEO
Kenneth M. Ross	EVP, Development & CTO
Victor Fischer	VP & CIO
Joseph Girata	VP & CFO
Steven Auerbach	VP, Human Resources
Barton S. Foster	EVP, Sales & Marketing
Michael Muller	Founder
Craig D. Norris	VP, Professional Services

Company Strategy

CONNECT's mission is to design, market, sell, and implement Internet-based interactive commerce, order management, and purchasing applications for global fortune-class companies.

Employees

As of December 1996, CONNECT had 149 employees, segmented as follows:

Marketing and sales	43
Services	48
Research and development	45
Finance and Administration	13
	149

The company currently has 130 employees.

Financials

CONNECT's 1996 revenue reached approximately $10.2 million, a 19% increase over 1995 revenue of $8.6 million. The company reported a net loss of $16.1 million in 1996 compared to a loss of $14.1 million in 1995. Research and development expenditures were approximately $4.7 million (46% of revenue) in 1996, compared to $4.8 million (47% of revenue) in 1995.

Interim Results

Revenue for the three months ending March 31, 1997 reached approximately $1.9 million, an increase of 29% over revenue of $1.5 million for the same period in 1996. Net losses for the period increased 2%, from $5.1 million in 1996 to $5.2 million in 1997.

The company's quarterly loss was due to the continued investments in sales, marketing, and software development in anticipation of greater demand for its products and services.

Market Financials

In 1996, approximately 75% of CONNECT's revenue was derived from the manufacturing industry, and the remaining 25% from the services industry.

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Geographic Markets

Virtually 100% of the company's revenue is derived from the U.S.

Key Products and Services

Connect Inc. has developed products and services including the following:

OneServer™ is an application platform for Internet-based interactive commerce in both the business-to-business and business-to-consumer markets. OneServer has the following features:

- Five levels of security (to provide features for protecting transactions and operational data)
- External systems integration (to provide performance, flexibility, and secure integration without data redundancy)
- Dynamic site creation (to reduce the amount of custom code and CGI scripting for site creation)

OneServer™ *2.0,* introduced in June 1997, adds support for technologies and standards such as the integration of Netscape's Enterprise Server and development and support of Java applications and applets through CONNECT's J-Bahn Java application programming interface. The OneSever 2.0 allows frequently accessed information to be stored in local memory.

OneServer OrderStream™ is an Internet-based Virtual Sales Channel that is designed for business-to-business resellers and distributors. OrderStream is a packaged application built on the OneServer platform which can support a full sales and distribution channel over the Internet.

PurchaseStream™, introduced in May 1997, is an Internet-based application software to streamline corporate purchasing. PurchaseStream enables users to place orders directly from their desktops, delivering increased purchasing productivity, improved customer service, and decreased costs.

CONNECT also offers the following on-line application services:

- Design and deployment of electronic commerce solutions
- Partnering with design services and system integrators to meet customer application requirements
- Training and support for developers, integrators, customers, and content managers
- Complete 7x24 hosting and support services

Clients

A sampling of CONNECT's customers include Compaq, Fruit of the Loom, Time Warner, PhotoDISC, Moore Office Systems, Reader's Digest, Ameritech, and First Data.

During the fourth quarter of 1996, CONNECT also signed a number of new customers for its OneServer and OrderStream applications including: Comark, Southern Electronics Distributors, Geometric Results (subsidiary of Ford Motor Company), ColorDesk, and 3Com.

Alliances

CONNECT shares partnerships with many companies, including Hewlett-Packard, RSA Data Securities, Inc., Oracle, and Sun Microsystems.

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In February 1997, the company joined with Hewlett-Packard and CSC to launch the Connect QuickStart Commerce Workshop, which is designed to bring customers "live" with a business-to-business interactive commerce solution in four weeks.

In December 1996 CONNECT teamed with Netscape Communications Corporation to deliver Internet-based interactive commerce solutions. This agreement will result in the integration of Netscape's Enterprise Server software with CONNECT's application software. The two companies also plan to participate in joint marketing activities to expand the market for high-capacity interactive commerce solutions.

Competition

CONNECT's major competitors include OMI, BroadVision, Informix/Illustra, and Actra. Potential competitors include client/server applications software companies including PeopleSoft, Vantive, and SAP, and EDI solution vendors, such as Sterling Commerce and GEIS.

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Vendor Profile

A Publication from INPUT's Vendor Analysis Program

May 1998

Coopers & Lybrand-
Baan Services Providers

Contact Information for Baan Services in North America

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United States
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The following profile outlines the services and support offered by Coopers & Lybrand for Baan Services.

Company Background

Founded in 1898, the Coopers & Lybrand organization is one of the world's leading providers of professional services, including accounting and auditing, tax and consulting. The organization comprises national and international practice entities, which are members of Coopers & Lybrand International, a limited liability association incorporated in Switzerland, which serve clients on a globally integrated basis in more than 120 countries.

Coopers & Lybrand worldwide revenues totaled $7.5 billion in 1997. North American revenues were $2.3 billion.

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Baan Activities

Coopers & Lybrand entered the North American Baan services market in 1996

Employees

Worldwide, Coopers & Lybrand has 70,000 employees, of which 160 are committed to Baan support. In North America, more than 75 of Coopers & Lybrand's 15,000 employees support the Baan practice.

Implementation Approaches

Coopers & Lybrand uses the BAAN Target Methodologies and DEM Reference Models for Accelerated Implementations. BAAN Target is based on Coopers & Lybrand's proprietary project management methodology GDPM (Goal Directed Project Management). Coopers & Lybrand has successfully delivered several implementations within a 6 to 9-month timeframe, and within the budgeted cost.

Ongoing Support Offerings

Coopers & Lybrand has a help hotline that offers post-implementation support to clients in addition to the software support offered through the Baan Company. These services are designed to complement and enhance the quality of support to clients, and are tailored to the local markets. Services include implementation support, training, systems integration, and network/infrastructure support.

Pricing Approaches

Coopers & Lybrand offers several models for Baan project pricing, from full turn-key solutions to support for a client's Baan competency center. Pricing varies according to the skill mix of consultants and the volume of work.

Coopers & Lybrand will tailor a support contract specifically to a client's requirements. They already have the base Baan infrastructure to be competitive with their pricing.

Alliances and Partnerships

Coopers & Lybrand has developed alliances with several Baan re-sellers to offer full service to clients. Baan re-sellers concentrate on the sale of Baan licenses, whereas Coopers & Lybrand's focus is delivering high quality Baan implementations at an effective cost.

Vertical Market Competencies

Coopers & Lybrand focuses on the following vertical markets:

- Aerospace and Defense
- Project Industries
- Process Manufacturing

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Exhibit 1 indicates the percentage of Coopers & Lybrand North American revenues from each of two vertical markets.

Exhibit 2 details Coopers & Lybrand's participation in seven broad market categories, in terms of the level of consulting or implementation involvement (e.g., consulting with the client, who will then perform the implementation, or implementing the Baan system for the client

Exhibit 1

Vertical Market Expertise

Vertical Market	Sub-segment	% of Revenues	% of Projects
Discrete Manufacturing	Automotive, Aerospace, Electrical & Electronic, Mechanical Engineering	90%	75%
Process Manufacturing	Food and Beverage, Chemicals, Pharmaceuticals, Oil and Gas	10%	25%

Source: Coopers & Lybrand

Exhibit 2

Level of Vertical Market Involvement, by Activity

Vertical Market	Consulting	Implementation
Aerospace & Defense	Low	High
Automotive	Medium	Low
Process Industries	High	High
Hybrid	High	High
Project Industries	High	High
Electronics	Medium	Medium
General Manufacturing	Medium	Medium

Source: Coopers & Lybrand

Plans for the Future

Plans for the future include assisting the Baan Company with the development and delivery of solutions for the process industry—in particular, the Consumer Goods sector. This focus takes advantage of Coopers & Lybrand's strength in this market.

Selected Customer Projects

In North America, Coopers & Lybrand has five BAAN IV customers and more than 20 customers using earlier versions of Baan.

Exhibit 3 lists four company references for Coopers & Lybrand Baan implementations in three markets.

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Exhibit 3

Coopers & Lybrand References

Baan Customer	Industry (Vertical Market or Subsegment)	Project Details
Major supplier to the Aerospace Industry	Aerospace	BAAN IV implementation, manufacturing, distribution, finance and DEM
Manufacturer of high technology electronic sensors	Electronics	BAAN IV implementation, manufacturing, distribution, finance and DEM
Manufacturer of environmental systems	Project Industries	BAAN IV implementation, manufacturing, distribution, finance and DEM
Major automotive assembler	Automotive	Provided BAAN IV training, IT strategy for Baan implementation

Source: Coopers & Lybrand

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Vendor Profile

A Publication from INPUT's Vendor Analysis Program

March 1998

Coopers & Lybrand Consulting

Coopers & Lybrand Consulting
Vice Chairman **John M. Jacobs**
1301 Avenue of the Americas
New York, NY 10020
Phone: **(212) 259-4010**
Fax: **(212) 536-3500**
Internet: **http://www.colybrand.com**

Status: Business Unit
Parent: Coopers & Lybrand L.L.P.

Key Points

- In 1997, Coopers & Lybrand announced a plan to merge practices with Price Waterhouse. An integrated global leadership team will have responsibility for guiding the merged organization.
- Coopers & Lybrand Consulting's strategic business units are organizaed by industry: Automotive, Construction and Engineering, Consumer and Industrial Products, Financial Services, Government, Health Care, Higher Education, High Technology, Pharmaceutical, Retail, Telecommunications and Media, and Utilities.
- Functional units working in tandem with industry practices are Financial Management, Logistics, Integrated Strategic Services, and Solutions Thru Technology (STT).
- In January 1998, the Solutions Thru Technology unit created new practices for Data Warehousing and Database Marketing.

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Company Description

Coopers & Lybrand Consulting is one of Coopers & Lybrand's five primary lines of business, providing the majority of the company's consulting services. Coopers & Lybrand Consulting services are provided along industry and functional lines, and include business strategy consulting and information technology services. Information services provided include consulting, software development, professional services, and systems integration.

The parent organization, Coopers & Lybrand L.L.P., is an international professional services firm that provides accounting, auditing, tax, and management consulting, and actuarial, employee benefits and compensation services to business, industry, and government.

- Coopers & Lybrand L.L.P. has more than 19,000 employees in the United States. Member firms of Coopers & Lybrand International have more than 82,000 people in 138 countries worldwide.

Organization and Structure

Coopers & Lybrand L.L.P. has five lines of business:

- Business Assurance
- Financial Advisory Services
- Management Consulting
- Tax
- Human Resource Advisory

Coopers & Lybrand Consulting is a U.S.-based organization—other countries with a separate consulting organization has its own P/L and operating and organizational structure. These report to a regional "oversight" committee, which reports to an International Steering Committee, which serves as a worldwide governance organization.

While the bulk of IT consulting revenue in the United States is attributable to Management Consulting's STT unit, the Business Assurance, Corporate Finance, and Human Resource Advisory lines of business all have important IT services, as described in the Key Products and Services section.

Company Strategy

Coopers & Lybrand Consulting's strategy is built around a set of vertically integrated practices, which combine its best strategy, operations, and technology applications consultants. This industry-based strategy allows the company to place the appropriate consulting teams on each assignment and move quickly from strategy to implementation.

Financials

Coopers & Lybrand Consulting declined to release any financials for this report.

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Employees

Coopers & Lybrand Consulting Professionals include associates, senior associates, managing associates, and administrative staff. Sales and in-house recruitment personnel are included in administrative staff.

Key Products and Services

Coopers & Lybrand Consulting provides change management, corporate transformation, business effectiveness, process reengineering, strategy, and systems development and delivery services to clients.
Coopers & Lybrand Consulting's systems development and delivery services cover the design, planning and implementation of information technology infrastructure and computer systems. Services by practice area include:

Financial Management—solutions to questions and issues challenging enterprise value management and the changing role of finance within the enterprise.

Integrated Strategic Services (ISS)—develops enterprise strategy and implementation methodology in three practice areas:

- Enterprise strategy
- Sales and marketing strategy
- Technology strategy and planning

Logistics—services are offered in four general areas:

- Logistics strategy
- Distribution operations
- Manufacturing
- Logistics information systems

Solutions Thru Technology (STT)—STT, the systems and technology consulting unit of Coopers & Lybrand Consulting, offers the full life cycle of systems implementation services, providing in-depth skills in different technology platforms, operating systems, applications, databases, communication systems, and languages. STT services include:

- Application Maintenance—maintenance and enhancement services for all or part of client application portfolios to keep systems operational and responsive to user needs.
- Baan—as a member of Baan's Global Consulting Alliance Program, STT implements Baan solutions to improve clients' operational efficiency.
- Consumer/Industrial Systems
  - In consumer goods, STT addresses Efficient Consumer Response (ECR), go-to-market, sales force automation, and similar consumer-focused initiatives.
  - In the industrial sector, STT supports supply chain performance, production planning, sourcing, scheduling and execution.

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  - Custom Systems Development—design and implementation services supported by Coopers & Lybrand's proprietary SUMMIT-D implementation methodology
  - Database Marketing—facilitation of customized, integrated database marketing strategies, infrastructure, targeting, analytical methods, and campaign execution
- Data Warehouse and Decision Support Systems—a full array of design services including infrastructure planning, data distribution, data mining and access, and architecture design
- Emerging Technologies—technology infrastructure and architecture design, automated testing, network architecture design, and transitioning to object-oriented technology
- Insurance and Managed Care Systems—industry-specific solutions for insurance and managed care companies including data warehouses, decision support systems, database marketing systems, Internet/electronic commerce, call center technology, document management systems, package selection/integration, and application management outsourcing
- Internet/Intranet/Electronic Commerce—development and implementation of business-to-business systems that replace or supplement EDI and create tighter links with customers and dealers
- Oracle—application and database strategy and implementation services that enhance and reengineer enterprise systems and processes

  Coopers & Lybrand is a participant in Oracle's Applications Partnering Program.
- PeopleSoft—full value-add life cycle implementation services for PeopleSoft applications including the financials, manufacturing, HRMS, and Student Administration suite including process design and prototyping employing Coopers & Lybrand's proprietary PeopleSummit methodology

  Coopers & Lybrand is a PeopleSoft Global Solutions Provider.
- Quality and Risk Management—a program that focuses on completing systems delivery projects on-time, on-budget, and within parameters
- SAP—industry-specific R/3 implementations

  Coopers & Lybrand is a SAP R/3 Implementation Consulting Partner and Global SAP Alliance Partner.
- Sales and Field Force Automation—services include remote/mobile supply chain and customer management systems integration, virtual selling initiatives via Internet/Intranet applications, and assimilating remote/mobile applications into corporate legacy environments
- Software evaluation and implementation strategies—consulting on the potential benefits of ERP software and the development of implementation strategies to help clients realize operational improvement

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- Software and infrastructure testing—testing strategy, methods, and execution including testing process review and assessment, test strategy, methodology and planning, test requirements, test case and scripts development, test laboratory specification and design, change management and release management, test automation and execution, and performance and stress testing.

Coopers & Lybrand News Network Extranet Series

Coopers & Lybrand is involved with a number of online ventures including:

- Tax New Network (TNN)—an electronic tax and business news service (www.taxnews.com), TNN has approximately 2,500 clients enlisted from about 1,500 companies.
- Lodging Research Network—lodging industry research and data (www.lodgingresearch.com)
- Business Executive's Accounting Network—an interactive source of accounting and financial information designed for financial executives of large corporations (www.clnewsnet.com/bean)
- PointCast Business Network Telecommunications Insider—available as a free download from PointCast (www.pointcast.com), the Telecommunications Insider delivers industry-specific news over the internet for telecommunications professionals.
- Coopers & Lybrand and PointCast are planning the Utilities and Energy Insider for industry-specific news on the utilities and energy industries

Other IT Services

Coopers & Lybrand Consulting has developed TeleSim, a software program that acts as a simulator to train telecom managers in the competitive dynamics of the industry.

Coopers & Lybrand LLP's Business Assurance line of business has a number of IT-intensive services including:

- Computer assurance services
- Computer systems assurance
- Computer audit
- IT advisory services
- Computer security services
- Data interrogation
- Spreadsheet reviews

Original products for financial management offered by Coopers & Lybrand include In$ite, a financial analysis modeling tool for school systems; the Multimedia Guide to Swaps, a training and reference tool on the swaps and derivatives markets; and,

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CLIME (Coopers & Lybrand's Information Management Environment), a set of software tools and methodologies for reengineering enterprise reporting and measurement processes.

Human resources information systems are offered by the Human Resources Advisory practice.

Recent Engagements

Applications Maintenance Outsourcing

- Providing application maintenance and development support for a large electronics components manufacturer during the replacement of its core financial systems
- Migrating and testing applications, implementing job processing and security standards, and providing ongoing technical support for a large oil, gas and chemical organization

Data Warehouse

- Performing the design and implementation of an enterprise data warehouse and decision support system for a leading credit card issuer.

Consumer & Industrial Systems

- A supply chain management strategy and action plan was developed for a diversified food and beverage manufacturer.
- An Executive Information System and Product Information System was added to the Sales and Marketing system for a midsize consumer products company.

Global Trading System

- Developing a comprehensive commodities and derivatives trading system for a major international bank

Internet/Extranet/E commerce

- For a major energy broker, an HTML and a Java based Extranet-based electricity futures trading system was developed.
- An Intranet-based Net Present Value system was developed for a major international bank to display the results of trading in near real-time to senior managers.

Migration

- An IT Organizational Strategy encompassing technology architecture, the organizational structure, and a development plan to suppport the migration was prepared for a mid-size electric distribution organization.

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Sales and Field Force Automation

- STT created a Sales Force Automation System for a cosmetics and apparel manufacturer that facilitates order entry, order status, electronic mail, data collection, and office automation needs.

Business Development

Coopers & Lybrand Consulting's sales strategy includes a dedicated sales force within Coopers & Lybrand Consulting and partners who commit 50% of their time to business development and the remaining 50% on consulting activities.

Alliances

Coopers & Lybrand Consulting maintains vendor relationships with the following technology companies: CyberCash, Digital Equipment, Hewlett Packard, IBM, Industri-Matematik International Corp. (IMI), JD Edwards, Lawson, Lotus, Microstrategy, Microsoft, NCR, NetScape, Novell, Oracle, PeopleSoft, Rational Software, SAP, SSA, Sun Microsystems, and Unisys.

Competition

Major competitors include Andersen Consulting, Ernst & Young, KPMG Peat Marwick, Deloitte & Touche, McKinsey & Company, Boston Consulting Group and Booz Allen & Hamilton.

INPUT Assessment

Coopers & Lybrand Consulting considers its strengths to include:

- Offering a full range of professional services, including business strategy, finance, and accounting, as well as technology consulting
- Providing world class business strategists *with* enabling technology and delivery along industry lines
- Taking a business and total return on investment view of all technology-enabling investment options
- Maintaining shared "Centers of Excellence" to reduce costs

Some of the challenges faced by the firm include the following:

- Maintaining momemtum in IT services as the merger with Price Waterhouse takes hold
- Further leveraging of the audit account base for consulting opportunities

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Parent Company

Coopers & Lybrand L.L.P.
1251 Avenue of the Americas
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Vendor Profile

A Publication from INPUT's Vendor Analysis Program

December 1997

Coopers & Lybrand Consulting — SAP Services

Contact Information:
David Frost, Managing Director
James Hurley, Managing Director
Robert Sinclair, UK SAP Practice Leader

The following profile outlines the services and support offered by Coopers & Lybrand Consulting for SAP Services

Coopers & Lybrand Consulting
www.colybrand.com

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Company Background

Coopers & Lybrand, established in 1957 by a merger of the English Cooper Brother & Co. (founded in 1861) and American Lybrand, Ross Bros. & Montgomery (founded in 1898), is one of the world's leading providers of professional services including accounting and auditing, tax and consulting. The organization comprises national and international practice entities which are members of Coopers & Lybrand International, a limited liability association incorporated in Switzerland, and which serve clients on a global basis from 745 offices in 170 countries.

Coopers & Lybrand Consulting, (C&L Consulting) offers management, strategic and technology consulting services. The company utilizes its international capabilities and local market knowledge in offering integrated solutions to its clients.

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C&L Consulting's worldwide revenues are approximately $1.5 Billion of which $550 million are generated in the USA. C&L Consulting has some 8,600 employees worldwide with 3,500 based in the USA.

SAP Services

C&L Consulting is an SAP R/3 Implementation Consulting Partner and Global Logo Partner with SAP. Coopers and Lybrand consulting has been supporting the implementation of SAP products since 1988 and currently have over 2,000 SAP experienced consultants worldwide.

Coopers and Lybrand Consulting has completed over 600 SAP implementations and supported SAP's product development in many areas including most recently the new Industry Solutions (IS) Is Banking and IS Retail.

The Coopers & Lybrand SAP Academy is accredited by SAP and combines standard SAP Academy training materials with Coopers & Lybrand specific topics such as SAP implementation methodology, SUMMIT R/3, and Goal Directed Project Management.

The following exhibit shows Coopers and Lybrand Consulting's SAP revenues in the United Kingdom by vertical market sectors.

Exhibit 2 details a selection of major SAP projects that C&L Consulting has undertaken in the United Kingdom.

Exhibit 1

SAP Activity By Revenue And Vertical Market, UK

Vertical Market	Sub-segment	% of Revenues	% of Projects
Communications	Telecommunications Media	10	10
Discrete Manufacturing	Automotive Aerospace Electrical & Electronic Mechanical Engineering, etc.	70	40
Process Manufacturing	Food and Drink Pharmaceuticals Chemicals, etc.	20	50

Source: Coopers & Lybrand

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Exhibit 2

Selected Customer Projects, UK

Customer	Industry	Project Details
Worldwide electronics group	Discrete Manufacturing	R/3 Design of worldwide business processes. Conceptual design covering finance, assembly & logistics. Prototype built in USA; first implementation in U.K. Rollout to other worldwide sites.
Carnaud Metalbox, U.K. and Belgium	Discrete Manufacturing	R/3 Project planning, process and conceptual design. Prototyping of commercial, manufacturing and financial systems.
U.K. television/ publishing company	Communications	R/3 Implementation project. Initially, project undertaken by another SAP Logo Partner but project ran into problems. C&L now has overall control of project, covering Finance, Controlling and Asset Management
U.K. arm of international chemicals company	Process Manufacturing	R/3 Project planning and scoping, project team education workshops, business process design, SAP design, prototyping and implementation support for new commercial and financial systems.
Morse Group, U.K.	Retail	R/3 Conceptual design and prototyping of Sales & Distribution, Materials Management, finance and controlling system. Final system build, testing and data conversion.
U.K. high street retailer	Retail	R/2 Finance and Materials Management consulting. Provision of upgrade procedures and hands on support for migration to new software release. Production system support.

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Competitive Differentiators

Coopers & Lybrand LLP is the only 'Big 6' SAP consulting Partner with a 100% successful track record of quality SAP implementation services.

All Coopers and Lybrand Consulting's SAP consultants have many years of business experience in addition to SAP skills. C&L's SAP specialists are organized into a global SAP consulting practice with local country representation throughout Europe, America, Africa, Asia and Australia. Dedicated experts in the local countries are linked to an International 'Center of Excellence' based in Hamburg, Germany.

C&L Consulting's SAP implementation experience includes the following types of SAP projects:

- Large international implementations where SAP is being used to drive major change through an organization. Mixed teams of SAP specialists and other management consultants provide full project support to clients and maximize the benefits realized from implementing SAP

- Smaller or single-country implementations where clients require fast SAP configuration support to achieve new 'best in class' business processes.

C&L Consulting's approach is to 'partner' with its clients' project teams. The company focuses on providing rapid skills and knowledge transfer to client teams, designing high quality business processes and identifying and managing potential program risks.

C&L Consulting has developed its own SAP R/3 implementation methodology called SUMMIT R/3. SUMMIT R/3 draws on the wider methodologies of SUMMIT-S (strategic planning approach) and SUMMIT-D (application/development approach), both highly regarded in the IT market. Features of SUMMIT R/3 include:

- SUMMIT R/3 is a program management tool for all aspects of SAP assignments, not just the configuration tasks. SUMMIT R/3 also links to project management tools such as Microsoft Project.

- SUMMIT R/3 integrates with SAP's implementation tools (Business Engineer, IMG etc.), thereby ensuring that the methodology is fully up-to-date with the latest SAP product releases.

- A 'fast track' route through SUMMIT R/3 has been proven by a number of reference clients including BP Chemicals and Carnaud Metalbox.

SUMMIT R/3 is a PC-based tool, available to clients through working jointly with C&L's consulting teams, and links to the company's International SAP Lotus Notes-based knowledge-base.

Industry Knowledge and References

C&L Consulting has specific focus on the following vertical markets:

- Electronics; Chemicals/Pharmaceuticals; Retail; Packaging; Health; and Banking.

- Retail and Banking are two of the company's emerging markets. C&L Consulting is an SAP Development Partner for both R/3 Retail and IS-Banking.

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Worldwide, C&L Consulting's SAP client list includes major companies from different industries, such as:

- Montgomery Kone
- Digital
- Philip Morris
- Rhone-Poulenc
- Deutsche Telekom
- Texaco
- ICI
- Hoescht
- Lufthansa
- Cadbury Schweppes
- Woolworth
- Lucent Technologies

Strategic Positioning

Special Strengths

C&L Consulting considers that the following points differentiate them in the SAP market:

- International Network linked by its dedicated Center of Excellence in Hamburg, Germany
- Extensive resources all over the world with local knowledge base
- Strong international roll-out capabilities
- Comprehensive methodology for SAP R/3 projects (SUMMIT R/3)
- Pioneers of ASAP, SAP's Fast-track approach which can be tailored for speedy implementations
- Focus on providing total skills transfer to client teams and designing high quality, 'best in class' business processes

Goals/Targets/Objectives

C&L Consulting's aim is to be a top-three player in all of its target market segments. This is true for its SAP practice in its target industries and key geographic market places.

Coopers and Lybrand also intends to pursue its goal of exceeding client expectations by providing the best possible services in every project-related area.

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U.K. arm of international chemicals company	Process Manufacturing	R/3 Project planning and scoping, project team education workshops, business process design, SAP design, prototyping and implementation support for new commercial and financial systems.
Morse Group, U.K.	Retail	R/3 Conceptual design and prototyping of Sales & Distribution, Materials Management, finance and controlling system. Final system build, testing and data conversion.
U.K. high street retailer	Retail	R/2 Finance and Materials Management consulting. Provision of upgrade procedures and hands on support for migration to new software release. Production system support.

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C&L Consulting's approach is to 'partner' with its clients' project teams. The company focuses on providing rapid skills and knowledge transfer to client teams, designing high quality business processes and identifying and managing potential program risks.

C&L Consulting has developed its own SAP R/3 implementation methodology called SUMMIT R/3. SUMMIT R/3 draws on the wider methodologies of SUMMIT-S (strategic planning approach) and SUMMIT-D (application/development approach), both highly regarded in the IT market. Features of SUMMIT R/3 include:

- SUMMIT R/3 is a program management tool for all aspects of SAP assignments, not just the configuration tasks. SUMMIT R/3 also links to project management tools such as Microsoft Project.
- SUMMIT R/3 integrates with SAP's implementation tools (Business Engineer, IMG etc.), thereby ensuring that the methodology is fully up-to-date with the latest SAP product releases.
- A 'fast track' route through SUMMIT R/3 has been proven by a number of reference clients including BP Chemicals and Carnaud Metalbox.

SUMMIT R/3 is a PC-based tool, available to clients through working jointly with C&L's consulting teams, and links to the company's International SAP Lotus Notes-based knowledge-base.

Industry Knowledge and References

C&L Consulting has specific focus on the following vertical markets:

- Electronics; Chemicals/Pharmaceuticals; Retail; Packaging; Health; and Banking.
- Retail and Banking are two of the company's emerging markets. C&L Consulting is an SAP Development Partner for both R/3 Retail and IS-Banking.

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Worldwide, C&L Consulting's SAP client list includes major companies from different industries, such as:

- Montgomery Kone
- Digital
- Philip Morris
- Rhone-Poulenc
- Deutsche Telekom
- Texaco
- ICI
- Hoescht
- Lufthansa
- Cadbury Schweppes
- Woolworth
- Lucent Technologies

Strategic Positioning

Special Strengths

C&L Consulting considers that the following points differentiate them in the SAP market:

- International Network linked by its dedicated Center of Excellence in Hamburg, Germany
- Extensive resources all over the world with local knowledge base
- Strong international roll-out capabilities
- Comprehensive methodology for SAP R/3 projects (SUMMIT R/3)
- Pioneers of ASAP, SAP's Fast-track approach which can be tailored for speedy implementations
- Focus on providing total skills transfer to client teams and designing high quality, 'best in class' business processes

Goals/Targets/Objectives

C&L Consulting's aim is to be a top-three player in all of its target market segments. This is true for its SAP practice in its target industries and key geographic market places.

Coopers and Lybrand also intends to pursue its goal of exceeding client expectations by providing the best possible services in every project-related area.

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